PROVINCIAL
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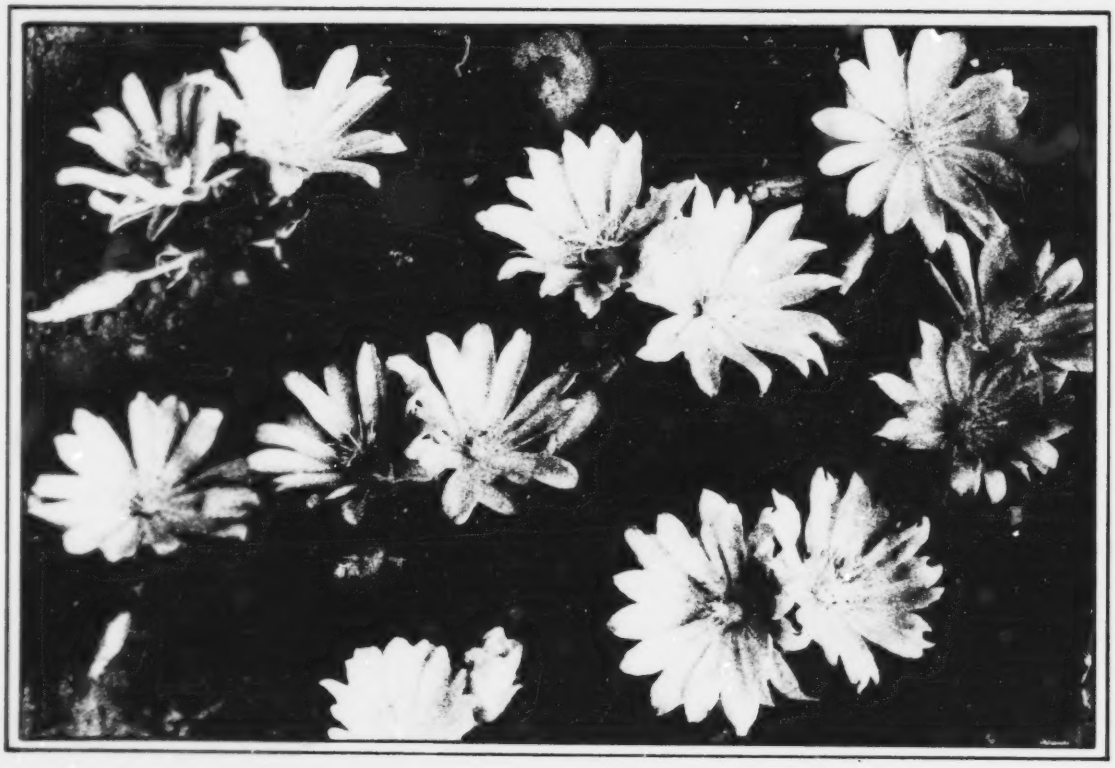
A CHECKLIST OF THE RARE VASCULAR PLANTS IN ALBERTA

Natural History
Occasional Paper No. 5
1984

John G. Packer
Cheryl E. Bradley



Alberta
CULTURE

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A CHECKLIST OF THE RARE VASCULAR PLANTS OF ALBERTA WITH MAPS

by

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INTRODUCTION

In 1973, following the establishment of a 'Rare and Endangered Plants Committee' by the Canadian Botanical Association, the National Museum of Natural Sciences (Ottawa) began preparation of provincially based rare plant lists. A number have been published, others are in preparation. The Alberta list, (Argus and White, 1978) was the second to be published and included some 350 species. Distribution maps were not included.

About the same time the Provincial Parks Division of Alberta Recreation, Parks and Wildlife, commissioned from the senior author a provincial rare plant list with accompanying distribution maps which had been prepared as part of his revision of the E.H. Moss 'Flora of Alberta' (1983). This was completed with the assistance of the junior author (Packer and Bradley, 1978). The definition of 'rare,' specified by Alberta Provincial Parks for use in this work, was broader than that used by Argus and White, and for this reason the list included about 450 species. The list was for the internal use of the Provincial Parks Division and has remained unpublished.

However, the publication of a list of the rare vascular plants of Alberta, with distribution maps, is eminently desirable. The maps add significant information and production of such a list would bring the Alberta list into conformity with the more recently published lists prepared by the National Museum of Natural Sciences, which now include distribution maps. The proposal by the Provincial Parks Division that the list be edited for publication as an Occasional Paper by the Provincial Museum has given us an opportunity to correct errors in the earlier lists and to incorporate the most recent information. Common names have been added by Julie Hrapko, Curator of Botany at the Provincial Museum.

However, no checklist of this sort is ever final; it is continually subject to updating and revision, as more information becomes available and new discoveries made. It is to be anticipated that some of our mountain and far northern species at present thought rare will prove to be hardly so.

Difficulty of access has meant limited collecting in comparison with other parts of the province. Conversely, some southern lowland species barely qualifying for inclusion may possibly become much rarer or even endangered as the habitats supporting these species are modified or destroyed by development in Alberta's more populous areas. It is, of course, natural to hope that this latter situation does not arise. Fortunately there are some reassuring signs.

The present publication comes at a time when the Government of Alberta is in the process of producing checklists of the rare amphibians, reptiles, birds, and mammals as a first step in the development of legislation that will effectively protect these rare animal species. It is to be hoped that this list will serve as a basis for developing similar protective legislation for the rare vascular plants of Alberta. It is important that information on rare plant species in Alberta and their distribution be made widely available to individuals and agencies interested in environmentally sensitive land use planning in the province. The location of rare species should help in the recognition of areas of provincial, national, or international significance that require protection from disturbance.

DESCRIPTION OF THE CHECKLIST

In the following list we are concerned only with rare native species. All infraspecific taxa, hybrids, and introduced species are excluded. The list includes a total of 360 species and represents a considerable refinement of previous lists, both published and unpublished.

The definition of a rare species used here is that of Argus and White (1978), namely "one that has a small population within the province ..... It may be restricted to a small geographical area or it may occur sparsely over a wide area". It need not, of course, be restricted to the province. Great precision in the estimation of population size and appropriate geographical area is hardly possible; subjective evaluation is obviously involved. However, there is obviously some correlation between the frequency of a species and the frequency with which it is found and collected. Species with small populations are found and collected less often than species with larger populations. Unless, of course, they are very common indeed, when they are hardly ever collected! In practical terms, we have, for the most part, included species known from five or fewer localities and collections. Most other lists have not been compiled upon such a precise quantitative basis, but our concept of what is rare species is comparable to the lists of other provinces and to the earlier Alberta list of Argus and White.

Something of an exception to the foregoing are a few species of the extreme southwestern part of the province; essentially Waterton Lakes National Park and a small area immediately north of it. In Alberta these species are wholly restricted to this unique area, but are not infrequent within it. They are:

Bromus vulgaris, Bupleurum americanum, Carex geyeri, Lomatium sandbergii, Minuartia nuttallii, Pachistima myrsinites, Ribes viscosissimum, Saxifraga mertensiana, Senecio cymbalaroides, Spiraea densiflora, Trisetum cernuum, and *Xerophyllum tenax.*

Sources for the list are numerous, some of the more important being, Moss (1959), Boivin (1968, 1967-1979) Scoggan (1978-1979), Packer and Dumais (1972), Argus and White (1978), and Packer and Bradley (1978). Verification of published and unpublished records has largely been accomplished by reference to, and examination of, the actual specimens cited. There are very few species occuring in the list for which the senior author has not seen at least one authentic specimen, collected within the province. For those not seen, the records are all well documented, and are for the most part cited by monographers of the various taxa. Not surprisingly though, knowledge of our species is not always at an equivalent level and the treatment of *Poa* species (other than *P. lettermanii*) is to be regarded as tentative. *Festuca vivipara* is excluded because of the uncertain taxonomic status of our viviparous *Festuca* material.

Species in the list are arranged as in the Flora of Alberta, namely in taxonomic order at the family level and alphabetical order at the species level. For each species the following information is provided:

(1) The scientific name of the species with the authority, and the common name. The nomenclature conforms closely to that used by the senior author in the revision of the Moss 'Flora of Alberta' (1983).

(2) Synonomy where the name used differs from that employed by Moss (1959), e.g., *Sedum douglasii* is now *S. stenopetalum* and *Senecio subnudus* is now *S. cymbalarioides*.

(3) A brief description of the habitat in which the species occurs. This information has been largely derived from collection data on the labels of herbarium specimens, from the literature, and from our own personal knowledge.

(4) The distribution of the species in North America and the world. The North American distribution is generally given in two tiers from west to east across the continent. The first tier represents the northern limit, the second the southern limit. A comma indicates a reasonably continuous distribution and a semicolon indicates a disjunction. A period separates the North American distribution from the distribution

in the rest of the world. The primary sources for Canadian distribution were Porsild (1964), Boivin (1966-1979), Taylor and MacBryde (1977), Scoggan (1957, 1978-1979), Argus and White (1978). For the United States and world distributions the primary sources were Hultén (1958, 1964, 1968, 1971), Hitchcock *et al* (1955-1969), Correll and Johnston (1970). Other floras, atlases and monographs consulted are included in the selected references.

No attempt has been made to indicate if a species is threatened, in immediate danger of extinction, or extinct; the reason being that there is generally quite insufficient information available. It seems quite possible that some species on the list that have not been collected in about a hundred years may already have become extinct in the province, for example, *Halimolobos virgata* and *Machaeranthera tanacetifolia*. However, the worst may not always happen. The first specimen of *Nothocalais cuspidata* (*Microseris cuspidata*) was collected in 1881, the second in 1975, and it now appears to be flourishing. *Trillium ovatum* reported in 1915 for the tiny and much collected Waterton Lakes National Park was not found there again, nor anywhere in Alberta, for sixty years.

DESCRIPTION OF THE DISTRIBUTION MAPS

The maps reproduced here are, for the most part, based on specimens in the following herbaria*: National Museum of Natural Sciences, Ottawa (CAN), Department of Agriculture, Ottawa (DAO), the University of Alberta, Edmonton (ALTA), the University of Calgary, Calgary (UAC), the University of Lethbridge, Lethbridge (LEA), the Northern Forest Research Center, Edmonton (CAFB), the Provincial Museum, Edmonton (PMAE), the Canada Department of Agriculture Research Station, Lethbridge, and the Canadian Wildlife Service, Edmonton. In virtually all cases the material has either been examined by the senior author or been annotated by an acknowledged expert.

Although this is not the place to attempt a biological and phytogeographical analysis of our rare vascular species, it may be of interest to note that the mountains and foothills account for approximately 55%, the prairies 25%, and the northern boreal forest 20%. About 100 species are known from only a single locality, and this usually means a single collection, about 75 are known from 2 localities, and about 175 are known from 3 or more.

A map of the Natural Regions of Alberta was prepared for Alberta Parks and Recreation by Achuff, Wallis, and Kondla (1979).

* The abbreviations are the official ones listed by Holmgren and Keuken (1974).

ACKNOWLEDGEMENTS

This work has been financially supported by grants to the senior author from the National Research Council of Canada and the Alberta Department of Recreation, Parks and Wildlife. The authors wish to thank J.M. Gillett, Curator of the National Museum Herbarium, and W.J. Cody, Curator of the Department of Agriculture Herbarium, for their invaluable assistance in so expeditiously making material available for examination. At the University of Calgary, C.D. Bird and B. Hallworth have given generous assistance, as has J. Kuijt at the University of Lethbridge. They are much indebted to I.J. Bassett and C.W. Crompton who provided most of the information and distributional data for *Atriplex* and *Chenopodium*, to G.A. Mulligan for *Draba*, to P. Hoch for *Epilobium*, to G.W. Argus for similar invaluable assistance with *Salix*, and to J.H. Hudson and D.F. Murray for confirming determinations of some species of *Carex*. The maps have been largely compiled by the senior author but the past assistance of several persons is gratefully acknowledged: M.G. Dumais, W.J. Elisens, V. Kulyk, S. Lupu-Krehm, B. McMullen, P. Mortimer, and K. Snarr. Finally, we wish to thank all those who have taken an interest and assisted us in this work, particularly J.O. Hrapko of the Provincial Museum, and P. Achuff of the Northern Research Centre, Edmonton.

The cover photograph of bitter-root, *Lewisia rediviva* Pursh, was made by the late W.C. McCalla of Calgary.

APPENDIX 1. EXCLUDED SPECIES

Species excluded from list by virtue of being considered introduced or doubtfully native:

Amaranthus californicus (Moq.) S. Wats.
Bahia oppositifolia (Nutt.) DC.
Bidens tripartita L.
Cuscuta gronovii Willd.
Cynoglossum boreale Fern.
Draba reptans (Lam.) Fern.
Helianthus maximiliani Schrad.
Lobelia spicata Lam.
Myosotis laxa Lehm.
Rudbeckia serotina Nutt.
Sagina decumbens L.
Schoenocrambe linifolia (Nutt.) Greene
Sparganium glomeratum Laest.
Spergularia diandra (Guss.) Boiss.
Sporobolus neglectus Nash

APPENDIX 11. KEY TO GEOGRAPHICAL NAMES

Ala	Alabama
Alas	Alaska
Alta	Alberta
Ariz	Arizona
Ark	Arkansas
BC	British Columbia
Calif	California
Can	Canada
Colo	Colorado
Conn	Connecticut
DC	District of Columbia
Del	Delaware
Fla	Florida
Ga	Georgia
Gt Lakes	Great Lakes
Huds Bay	Hudson Bay
Ia	Iowa
Ida	Idaho
Ill	Illinois
Ind	Indiana
Is	Island
Kans	Kansas
Ky	Kentucky
La	Louisiana
Lab	Labrador
Mack	District of Mackenzie
Man	Manitoba
Mass	Massachusetts
Me	Maine
Mich	Michigan
Minn	Minnesota
Miss	Mississippi
Mo	Missouri
Mont	Montana
NB	New Brunswick
NC	North Carolina
ND	North Dakota
Neb	Nebraska
Nev	Nevada
Nfld	Newfoundland
NH	New Hampshire
NJ	New Jersey
NM	New Mexico
NS	Nova Scotia
NY	New York
Okla	Oklahoma
Ont	Ontario
Ore	Oregon
Pa	Pennsylvania
PEI	Prince Edward Island
Que	Quebec
S America	South America
Sask	Saskatchewan
SD	South Dakota
Tenn	Tennessee
Tex	Texas
Va	Virginia
Vt	Vermont
Wash	Washington
Wisc	Wisconsin
WVa	West Virginia
Wyo	Wyoming
Yuk	Yukon

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This list includes general references and some not covered in the earlier publications of Boivin (1967-1979), Scoggan (1978-1979), and Argus and White (1978).

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ANNOTATED CHECKLIST
OF RARE VASCULAR SPECIES

ISOETACEAE (Quillwort Family)

1 *Isoetes bolanderi* Engelm. Bolander's Quillwort

Shallow water in mountain pools

sBC, Alta s to Calif, Colo.

2 *Isoetes echinospora* Dur. Braun's Quillwort
Isoetes muricata Dur.

Ponds and lakes.

Alas, Yuk, sMack, nSask, nMan to Nfld s to BC, Colo, Gt Lakes. Circumpolar.

LYCOPODIACEAE (Club-moss Family)

3 *Lycopodium inundatum* L. Bog Club-moss

Moist depressions in sand dunes

seAlas, to Calif, nMont; neAlta, nSask; Gt Lakes to Nfld, s to Gulf States. wEurope. Japan.

SELAGINELLACEAE (Little Club-moss Family)

4 *Selaginella rupestris* (L.) Spring Little Club-moss

Dry open areas

neAlta, nSask to Gt Lakes, Que s to Okla, Ga.

5 *Selaginella wallacei* Hieron. Wallace's Little Club-moss

Dry rocky slopes in mountains

sBC, swAlta s to Calif, wMont.

OPHIOGLOSSACEAE (Adder's-tongue Family)

6 *Botrychium lanceolatum* (Gmel.) Angstr. Lance-leaved Grape Fern

Alpine meadows and open woods

Alas, Yuk s to Ore, Utah, Colo; swSask; Gt Lakes to Nfld s to NC. More or less circumpolar.

7 *Botrychium paradoxum* W.H. Wagner — Paradoxical Grape Fern

Moist grassy slopes in mountains.

swAlta, Mont.

8 *Botrychium simplex* E. Hitchc. — Dwarf Grape Fern

Moist meadows and shores

cBC to cSask s to Calif, NM; Gt Lakes to Nfld. nEurope. Japan.

POLYPODIACEAE (Fern Family)

9 *Adiantum pedatum* L. — Maidenhair Fern

Cliffs and boulders at high altitudes

Alas, BC, swAlta s to Calif, Utah, Wyo, Okla; Gt Lakes to Nfld. Asia.

10 *Athyrium distentifolium* Tausch *ex* Opiz — Alpine Lady Fern
Athyrium alpestre (Hoppe) Rylands

Rocky slopes and alpine meadows.

sAlas, BC, swAlta s to Calif, Colo; Gt Lakes to Nfld. More or less circumpolar.

11 *Cheilanthes gracillima* D.C. Eat. — Lace Fern

Crevices of rocks at high altitudes

sBC, swAlta s to Calif, Nev, Mont.

12 *Cystopteris montana* (Lam.) Desv. — Mountain Bladder Fern

Springy or damp calcareous places

Alas, Yuk, wMack s to BC, nMont, Colo; Ont, Que to Nfld. More or less circumpolar.

13 *Dryopteris cristata* (L.) Gray — Crested Shield Fern

Moist woods and marshes

BC to Nfld, s to Mont, Ark, NC. Europe. wAsia.

14 *Dryopteris filix-mas* (L.) Schott — Male Fern

Wooded slopes

BC, swAlta s to Wash, Mont, swUSA; Gt Lakes to Nfld. Circumpolar.

15 *Dryopteris fragrans* (L.) Schott — Fragrant Shield Fern

Siliceous rocks

Alas, to Ellesmere Is s to BC, Alta, nSask, nMan, Gt Lakes, Nfld. Circumpolar.

16 *Gymnocarpium jessoense* (Koidz.) Koidz.
Gymnocarpium robertianum (Hoffm.) Newm. — Limestone Oak Fern

Rock crevices

Alas, Yuk, sMack, nSask to Gt Lakes, Nfld. Circumpolar.

17 *Pellaea atropurpurea* (L.) Link — Purple-stemmed Cliff Brake

Calcareous rocks

sBC, swAlta s to Ariz, NM; eOnt, wQue, s to Tex, Fla.

18 *Phegopteris connectilis* (Michx.) Fee
Thelypteris phegopteris (L.) Slosson — Long Beech Fern

Moist woodlands

Alas, Yuk, wMack, nSask to Nfld s to Ore, Mont, Ia, Ind, Tenn, NC. Circumpolar.

19 *Polypodium hesperium* Maxon — Rocky Mountain Polypody
Polypodium vulgare L. var. *columbianum* Gilbert

Moist rocky outcrops

Alas, Yuk s to Calif, Ariz, NM.

20 *Polypodium virginianum* L. — Virginia Polypody or Licorice Fern
Polypodium vulgare L. var. *virginianum* (L.) Eat.

Moist rocky outcrops

wYuk, nBC, neAlta to Huds Bay, Nfld s to Ala, Ga.

21 *Pteridium aquilinum* (L.) Kuhn — Bracken Fern

Woods and thickets

sAlas to Calif, Tex; sMan to Nfld s to Gulf States. Circumpolar.

22 *Woodsia glabella* R.Br. — Smooth Woodsia

Moist calcareous rocks and shaded cliffs

Alas to Ellesmere Is, Nfld s to BC, Alta, nSask, cMan, Lab, NY; Lk Superior. Circumpolar.

23 *Woodsia ilvensis* (L.) R.Br. — Rusty Woodsia

Rock crevices

Alas to seBaffin Is, Nfld s to cBC, nAlta, nSask, Man, Gt Lakes, NC. Circumpolar.

PINACEAE (Pine Family)

24 *Larix occidentalis* Nutt. — Western Larch

Moist mountain slopes

sBC, swAlta s to Ore, nwMont.

25 *Pinus monticola* Dougl. — Western White Pine

Open rocky slopes in mountains

sBC, swAlta, s to cCalif, wMont.

26 *Tsuga heterophylla* (Raf.) Sarg. — Western Hemlock

Moist montane valleys

Alas, BC, wAlta s to nCalif, nwMont.

TAXACEAE (Yew Family)

27 *Taxus brevifolia* Nutt. — Western Yew

Moist woodland in mountains

BC, swAlta s to nCalif, Ida, nwMont.

SPARGANIACEAE (Bur-reed Family)

28 *Sparganium fluctuans* (Morong) Robins. Floating Bur-reed

Shallow water

BC to Sask; Gt Lakes to Nfld.

29 *Sparganium hyperboreum* Laest. Northern Bur-reed

Shallow alpine lakes

Alas, Yuk, nBC, Alta; Huds Bay to Lab, Nfld; wOnt, seMan. Circumpolar.

NAJADACEAE (Pondweed Family)

30 *Potamogeton obtusifolius* Mert. & Koch Blunt-leaved Pondweed

Lakes and ponds

cYuk, wMack, cSask to Nfld, s to nWash, Man, Gt Lakes, NJ. Eurasia.

31 *Potamogeton robbinsii* Oakes Robbins Pondweed

Shallow water

BC, Alta s to Calif, Ida, Wyo; cMan, Gt Lakes to Lab.

32 *Ruppia maritima* L.
Ruppia occidentalis S. Wats. Widgeon-grass

Saline lakes and ponds

Alas, BC to Man s to Calif, Mont, ND. S America. Eurasia.

LILAEACEAE (Flowering-quillwort Family)

33 *Lilaea scilloides* (Poir.) Haum. Flowering-quillwort

Slough margins and mudflats

BC to sSask s to S America. Calif, Nev, Mont.

ALISMATACEAE (Water-plantain Family)

34 *Sagittaria latifolia* Willd. Broad-leaved Arrowhead

Ponds and lakes

sBC to NS s to Calif, Tex, Mo. S America.

GRAMINEAE (Grass Family)

35 *Agropyron scribneri* Vasey Scribner's Wheat Grass

Dry alpine slopes

sBC, swAlta s to Calif, Ariz, NM.

36 *Agrostis humilis* Vasey Low Bent Grass

Moist alpine slopes

BC, swAlta s to e Mont, Ore, Nev, Utah, Colo.

37 *Agrostis mertensii* Trin. Northern Bent Grass
Agrostis borealis Hartm.

Moist alpine slopes

Alas to sBaffin Id, Nfld s to BC, Utah, Colo, nSask, James Bay, NY, NC. Circumpolar.

38 *Agrostis thurberiana* A.S. Hitchc. Thurber's Bent Grass

Moist alpine slopes

Alas, BC, swAlta s to Calif, Utah, Colo.

39 *Arctagrostis arundinacea* (Trin.) Beal Polar Grass

Moist open ground and wet meadows

Alas, Yuk, wMackm nBC, Alta. Asia.

40 *Aristida longiseta* Steud. Red Three-awn

Dry sandy prairie

sBC to swMan s to Ore, Ariz, Tex, SD.

41 *Bromus altissimus* Pursh
Bromus purgans L. — Fringed Brome

Moist banks

BC to sMan, Minn, Wisc, Mich, NY, Me, sQue, s to Neb, Mo, Ind, Pa.

42 *Bromus vulgaris* (Hook.) Shear — Mountain Brome

Open woods

BC, swAlta s to Calif, Wyo.

43 *Calamagrostis lapponica* (Wahl.) Hartm. — Lappland Reed Grass

Moist or gravelly slopes at high altitudes

Alas to sBaffin Is s to BC, Alta, nSask, Huds Bay, Lab.

44 *Danthonia spicata* (L.) Beauv. — Poverty Oat Grass

Dry to moist open areas and open woodland

sAlas, BC transcont sCan to Nfld s to Ore, NM, Tex, SD, Ala, nFla.

45 *Danthonia unispicata* (Thurb.) Munro — One-spike Oat Grass

Open ground

BC to swSask s to Calif, Utah, Colo.

46 *Dichanthelium acuminatum* (Swartz) Gould & Clarke
Panicum thermale Boland — Thermal Millet

Marshy ground

BC to NS s to Calif, Tex, Fla. Mexico. S America.

47 *Dichanthelium leibergii* (Vasey) Freckmann — Leiberg Millet

Grassland and dry open woods

sAlta to Ont s to ND, Kans, Mo, Ind, Pa.

48 *Dichanthelium oligosanthes* (Schultes) Gould — Sand Millet
Panicum wilcoxianum Vasey

Dry open areas; valley slopes

BC to sOnt s to Calif, Ariz, NM, Tex, La, Miss, Ala, Fla. Mexico.

49 *Elymus mollis* Trin. — American Dune Grass

Sand dunes

Alas to nBaffin Is, Nfld s to Calif, nAlta, nSask, Lk Superior, Lab, Mass. eAsia.

50 *Festuca altaica* Trin. — Northern Rough Fescue

Open slopes at high elevations

Alas to sMack s to BC, swAlta; ? Que. eAsia.

51 *Festuca occidentalis* Hook. — Western Fescue

Dry wooded slopes

BC, swAlta s to Calif, Ida, Wyo; Gt Lakes.

52 *Festuca subulata* Trin. — Bearded Fescue

Moist thickets and shaded banks

BC, swAlta s to Calif, Utah, Wyo.

53 *Glyceria elata* (Nash) A.S. Hitchc. — Tall Manna Grass

Streamsides and wet meadows

BC, swAlta s to Calif, Ariz, NM.

54 *Hierochloë alpina* (Sw.) R. & S. — Alpine Sweetgrass

Dry alpine slopes

Alas to Ellesmere Is, Nfld s to BC, Alta, sMack, Huds Bay, nQue, NY. Circumpolar.

55 *Hordeum pusillum* Nutt. — Little Barley

Saline prairie

BC, sAlta s to Calif, Tex, Fla. Mexico.

56 *Melica smithii* (Porter) Vasey — Melic Grass

Moist subalpine woodlands

sBC, swAlta s to Ore, Mont, Wyo; Gt Lakes.

57 *Melica subulata* (Griseb.) Scribn. — Alaska Onion Grass

Moist coniferous woods

sAlas, BC, swAlta s to Calif, Mont, Wyo.

58 *Muhlenbergia asperifolia* (Nees & Mey.) Parodi — Scratch Grass

Moist alkaline soil

sBC to sMan s to Calif, Ariz, NM, Tex, Mo, Ill.

59 *Muhlenbergia racemosa* (Michx.) BSP. — Muhly Grass

Sandhills and dry slopes

BC to wOnt s to Wash, Utah, NM, Tex, Mo, Gt Lakes.

60 *Munroa squarrosa* (Nutt.) Torr. — False Buffalo Grass

Dry plains, slopes and disturbed areas

sAlta, sSask s to Calif, Nev, Utah, Tex.

61 *Oryzopsis canadensis* (Poir.) Torr. — Canadian Rice Grass

Open woods and hillsides

BC transcont sCan to Nfld s to Gt Lakes, WVa.

62 *Oryzopsis exigua* Thurb. — Little Rice Grass

Dry open ground or open woods

sBC to swAlta s to Ore, Nev, Utah, Colo.

63 *Oryzopsis micrantha* (Trin. & Rupr.) Thurb. Little-seed Rice Grass

Dry open areas and rocky slopes

BC to sMan s to Calif, Nev, Ariz, NM, Tex.

64 *Poa gracillima* Vasey Pacific Bluegrass

Moist woods and meadows

BC, swAlta s to Calif, Utah, Colo.

65 *Poa lettermanii* Vasey Letterman's Bluegrass

Alpine ridges and summits

BC, swAlta s to Calif, Nev, Utah, Colo.

66 *Poa nevadensis* Vasey *ex* Scribn. Nevada Bluegrass

Moist meadows in prairie

Yuk, BC, Alta s to Calif, Nev, Ariz, Colo.

67 *Poa stenantha* Trin. Bluegrass

Open woods

Alas, Yuk s to Ore, Ida, Mont; Colo. eAsia.

68 *Puccinellia hauptiana* (Krecz.) Kitagawa Haupt's Alkali Grass

Marshy ground

Alas, Yuk, Mack, nAlta; Huds Bay. Asia.

69 *Puccinellia pauciflora* (Presl) Munz Small-flowered Manna Grass
Glyceria pauciflora Presl

Wet places

sAlas, sYuk s to Calif, NM, SD.

70 *Schedonnardus paniculatus* (Nutt.) Trel. — Tumble Grass

Dry plains

sAlta to sMan s to Ariz, Tex, La, Wisc.

71 *Spartina pectinata* Link — Prairie Cord Grass

Saline shores and marshes

BC, sMack to Nfld s to Ore, Utah, NM, Tex, Mo, NC.

72 *Trisetum canescens* Buckl. — Tall Trisetum

Moist woods

sBC, swAlta s to Calif, Ida, Mont.

73 *Trisetum cernuum* Trin. — Nodding Trisetum

Moist woods

seAlas, BC, swAlta s to Calif, Ida, Mont.

74 *Trisetum montanum* Vasey — Mountain Trisetum

Mountain slopes and ledges

Alta; Utah, Ariz, Colo, NM.

75 *Vulpia octoflora* (Walt.) Rydb. — Six-weeks Fescue
Festuca octoflora Walt.

Depleted rangeland and sterile ground

BC to sOnt s to Calif, Tex, Fla.

CYPERACEAE (Sedge Family)

76 *Carex adusta* Boott — Browned Sedge

Dry acid soil

BC to Nfld s to Gt Lakes, NY.

77 *Carex aperta* Boott — Open Sedge

Low wet ground

sBC, swAlta s to Ore, nwMont.

78 *Carex bipartita* All. — Lachenal's Sedge

Moist alpine slopes, snowbeds

Alas to s Baffin Is, Nfld s to Mont, sMack, nMan, nQue; Utah, Colo; Gaspe.

79 *Carex crawei* Dewey — Crawe's Sedge

Calcareous meadows

BC to Nfld s to Wash, Utah, Wyo, Kans, Mo, Ala, NJ.

80 *Carex deflexa* Hornem. — Bent Sedge

Dry open woodland

Alas, Yuk, Mack to Huds Bay, nQue, Nfld s to cBC, cSask, cMan, Gt Lakes. Greenland.

81 *Carex enanderi* Hulten — Sedge

Gravelly shores of mountain lakes

sAlas to BC, swAlta.

82 *Carex epapillosa* Mack. — Sedge

Mountain meadows

sBC, swAlta s to Calif, Mont, Colo.

83 *Carex geyeri* Boott — Geyer's Sedge

Open woods and dry mountain slopes

BC, swAlta s to nCalif, Utah, Colo.

84 *Carex glacialis* Mack. Glacier Sedge

Dry calcareous mountain slopes

Alas, sBaffin Is to Ellesmere Is, Nfld s to BC, swAlta, nSask, James Bay, nQue. Circumpolar.

85 *Carex hystricina* Muhl. *ex* Willd. Porcupine Sedge

Shady marshes

BC to Nfld, s to Calif, NM, Tex, Tenn, Va.

86 *Carex illota* Bailey Sedge

Moist mountain slopes

sBC, swAlta to Calif, Mont, Colo.

87 *Carex kelloggii* Boott Kellogg's Sedge

Moist banks and lake shores

Alas, swYuk s to Calif, Nev, Utah, Colo.

88 *Carex lacustris* Willd. Lake Sedge

Marshes and swampy woods

BC to Nfld s to Ida, SD, Mo, DC.

89 *Carex lenticularis* Michx. Lens-fruited Sedge

Marshes and lake shores

Mack to Nfld s to nAlta, cSask, sMan, Gt Lakes.

90 *Carex loliacea* L. Rye-grass Sedge

Marshes and sphagnum bogs

Alas, Yuk, Mack to nMan, cOnt s to cBC, cSask. More or less circumpolar.

91 *Carex mertensii* Prescott — Merten's Sedge

Moist montane woods and stream banks

sAlas to BC, swAlta s to Calif, Ida, wMont. Japan.

92 *Carex misandra* R. Br. — Nodding Sedge

Dry alpine slopes

Alas to Ellesmere Is s to swAlta, sMack, Huds Bay, Lab; Utah, Colo. Circumpolar.

93 *Carex nebraskensis* Dewey — Nebraska Sedge

Marshy ground

sBC, sAlta s to Calif, Ariz, NM, SD, Neb, Kans.

94 *Carex paysonis* Clokey — Payson's Sedge
C. tolmiei Boott

Mountain meadows

sBC, swAlta s to Ore, Utah, Wyo.

95 *Carex preslii* Steud. — Presl's Sedge

Dry open slopes

Alas; BC, swAlta s to Calif, Mont.

96 *Carex pseudo-cyperus* L. — Cyperus-like Sedge

Swamps and marshes

Alta to sMan, ND; Gt Lakes to Nfld. Eurasia. Japan.

97 *Carex scoparia* Schk. — Broom Sedge

Moist open woodland

BC, wAlta s to Ore, NM; Man to Nfld s to Ark, Fla.

98 *Carex supina* Wahl. — Weak Sedge

Dry, gravelly, eroding slopes

Alaska, Banks Is to ne Baffin Is s to nBC, nAlta, Huds Bay, nQue; sMan; nLk Superior. Circumpolar.

99 *Carex tincta* Fern. — Tinged Sedge

Meadows and open woodlands

sBC, sAlta; Mich to Que, NB s to NY.

100 *Carex trisperma* Dewey — Three-seeded Sedge

Bogs and wet woods

BC, sMack to nQue, Nfld s to Minn, Ill, Va.

101 *Carex vesicaria* L. — Blister Sedge

Swamps and marshes

sBC, swAlta; Man to Nfld s to Calif, NM, Mo, Ind, Del. Circumpolar.

102 *Carex vulpinoidea* Michx. — Fox Sedge

Swampy ground

sBC to Nfld s to Ore, Ariz, Tex, Fla.

103 *Cyperus squarrosus* L.
Cyperus inflexus Muhl. — Awned Nut-grass

Moist soil, sandy alluvium

sBC to NB s to Tex, Fla. Mexico.

104 *Cyperus schweinitzii* Torr. — Sand Nut-grass

Dry sandy soil and dunes

sAlta to swQue s to Utah, NM, Tex, Ind, NY.

105 *Eleocharis compressa* Sulliv. Flattened Spike-rush

Sandy shores and marshy ground

sBC to Que, nNY s to Colo, Tex, Ga.

106 *Eleocharis ovata* (Roth.) R. & S. Engelmann's Spike-rush
Eleocharis engelmannii Steud.

Wet places

sBC to Nfld s to Calif, Tex, Ga, Conn. Eurasia.

107 *Eriophorum callitrix* Cham. Cotton-grass

Alpine bogs

Alas to nBaffin Is, Nfld s to BC, swAlta, sMack, James Bay, nQue; Wyo. neAsia; Greenland.

108 *Rhynchospora capillacea* Torr. Slender Beak-rush

Calcareous bogs

Alta to Nfld s to SD, Ill, Ind, Ohio, Tenn, Va.

109 *Scirpus clintonii* Gray Clinton's Bulrush

Marshy ground and turfy shores

Alta, Sask; Ont to NB s to Minn, Mich, NY.

110 *Scirpus cyperinus* (L.) Kunth Wool-grass
S. atrocinctus Fern.

Marshy ground

sBC, Alta, nSask, nMan, James Bay to Nfld s to cSask, sMan, Minn, Mo, Tex, Fla.

111 *Scirpus fluviatilis* (Torr.) Gray River Bulrush

Margins of ponds and lakes

Alta to Que, NB s to Calif, NM, Kans, Va. eAsia.

112 *Scirpus nevadensis* S. Wats. Nevada Bulrush

Wet alkaline soil

sBC to sMan s to Calif, Utah, Wyo, ND.

113 *Scirpus pallidus* (Britt.) Fern. Pale Bulrush
S. atrovirens Willd. var. *pallidus* Britt.

Marshy areas

Alta to James Bay s to neOre, Utah, NM, Tex, Mo, Minn.

JUNCACEAE (Rush Family)

114 *Juncus biglumis* L. Two-bracted Rush

Moist-alpine slopes and ledges

Alas to Ellesmere Is s to BC, swAlta, sMack, Huds Bay, nQue; Wyo, Colo. Circumpolar.

115 *Juncus brevicaudatus* (Engelm.) Fern. Short-tailed Rush

Shores and marshes

neAlta, nSask, Man to Nfld s to Gt Lakes, NC.

116 *Juncus filiformis* L. Thread Rush

Bogs and marshes

Alas, Yuk, Huds Bay, nQue s to Wash, Colo, nSask, sMan, Gt Lakes. Circumpolar.

117 *Juncus nevadensis* S. Wats. Nevada Rush

Wet places

sBC, swAlta s to Calif, Ariz, Mont, NM.

118 *Luzula acuminata* Raf. Wood Rush

Moist woodland, clearings

Alta to Nfld s to Minn, nAla, nGa, Me.

119 *Luzula hitchcockii* L. Hämet-Ahti — Hitchcock's Wood Rush

Montane coniferous woodland

sBC, swAlta s to Ore, wMont.

LILIACEAE (Lily Family)

120 *Allium geyeri* S. Wats. — Geyer's Wild Onion

Wet meadows and stream banks

BC, sAlta, sSask s to Ariz, Tex, SD.

121 *Disporum hookeri* (Torr.) Britt. — Hooker's Fairy-bell
Disporum oreganum (S. Wats.) B. & H.

Moist woods

cBC, swAlta s to nwOre, wMont.

122 *Streptopus roseus* Michx. — Rose Mandarin

Moist forests

seAlas, BC, wAlta s to Ore; sMan to Nfld s to Minn, Tenn, Ga.

123 *Streptopus streptopoides* (Ledeb.) Frye & Riggs — Small Twisted-stalk

Coniferous woodland

cBC, wAlta s to Wash, eIda. eAsia.

124 *Trillium ovatum* Pursh — Western White Trillium or Wake-Robin

Moist woods and thickets

sBC, swAlta s to cCalif, Mont, Colo.

125 *Xerophyllum tenax* (Pursh) Nutt. — Bear-grass

Dry slopes and open woods

seBC, swAlta s to Calif, Ida, Mont.

126 *Yucca glauca* Nutt. Yucca or Soapweed

Dry slopes and coulees

seAlta, swSask s to Ariz, Tex, Mo, Ia.

IRIDACEAE (Iris Family)

127 *Iris missouriensis* Nutt. Western Blue Flag

Moist meadows and stream banks

wBC, swAlta s to Calif, NM, SD.

ORCHIDACEAE (Orchid Family)

128 *Cypripedium acaule* Ait. Stemless Lady's-slipper

Bogs, wet woods and sand dunes

wMack, neAlta, nSask to Nfld s to Minn, Ala, Me.

129 *Cypripedium montanum* Dougl. *ex* Lindl. Mountain Lady's-slipper

Moist woods

seAlas, BC, swAlta s to Calif, Mont, Wyo.

130 *Habenaria saccata* Greene Slender Bog Orchid

Wet meadows, bogs

Alas, Yuk, BC, swAlta s to Calif, Nev, NM.

131 *Habenaria unalaschensis* (Spreng.) S. Wats. Alaska Bog Orchid

Moist woods and meadows

sAlas, BC, swAlta s to Calif, nwWyo; Nev, Utah, Colo; Gt Lakes; eQue. Mexico.

132 *Listera caurina* Piper Western Twayblade

Moist woods

se Alas, BC, swAlta s to Calif, wMont, Wyo.

133 *Listera convallarioides* (Sw.) Nutt. Broad-lipped Twayblade

Moist woods and meadows

swAlas, BC, swAlta s to Calif, wMont, Utah, Colo; Lk Superior.

134 *Malaxis monophylla* (L.) Sw. White Adder's-mouth
Malaxis brachypoda (Gray) Fern.

Damp woods, banks and bogs

sAlas, BC, cAlta to Nfld s to Gt Lakes, NJ; Calif; Colo. Circumpolar.

135 *Malaxis paludosa* (L.) Sw. Bog Adder's-mouth

Bogs, in sphagnum moss

sAlas, swMack, BC to wOnt s to Minn. Circumpolar.

SALICACEAE (Willow Family)

136 *Salix alaxensis* (Anderss.) Coville Alaska Willow

Alpine slopes

Alas, Yuk, Mack to nwHuds Bay, nQue s to BC, Alta, nMan.

137 *Salix boothii* Dorn Booth Willow

Lake shores, river banks, bogs and meadows

sBC to Alta s to nCalif, Colo.

138 *Salix lanata* L. Woolly Willow

Flood plain of North Saskatchewan River

Alas, Yuk to nBaffin Id s to nBC, nMan, Que, Nfld; Gaspé; Alta. Circumpolar.

139 *Salix sitchensis* Sanson *ex* Bong. Sitka Willow

Flood plain of Athabasca River

sAlas, BC, Alta s to Calif, Mont.

140 *Salix stolonifera* Coville — Creeping Willow

Wet hummocks at alpine elevations

sAlas, nwBC; Alta.

URTICACEAE (Nettle Family)

141 *Parietaria pensylvanica* Muhl. *ex* Willd. — American Pellitory

Gravelly places and disturbed areas

BC to Que s to Calif, Tex, Ala.

POLYGONACEAE (Buckwheat Family)

142 *Eriogonum cernuum* Nutt. — Nodding Umbrella-plant

Badlands and valley slopes

seAlta, swSask s to Mont, Ore, Calif, NM.

143 *Koenigia islandica* L. — Koenigia

Silty banks and mudflats at high elevations

Alas, Yuk to Devon Is s to nBC, Arctic Coast, Huds Bay, Lab; Alta, Mont; Colo. Circumpolar.

144 *Polygonum austiniae* Greene — Austin's Knotweed

Dry banks

seBC, Alta s to sIda, cOre, scMont, Wyo.

145 *Polygonum engelmannii* Greene — Slender Knotweed

Moist banks and slopes at lower montane elevations

sBC, Alta, wIda s to Colo.

146 *Polygonum minimum* S. Wats. — Least Knotweed

Dry ground

BC, Alta s to Calif, Colo.

147 *Polygonum watsonii* Small — Watson's Knotweed

Moist meadows and flats

sBC to swSask s to Calif, NM.

148 *Rumex paucifolius* Nutt. — Alpine Sheep Sorrel

Moist mountain meadows

BC, Alta s to Calif, Colo.

CHENOPODIACEAE (Goosefoot Family)

149 *Atriplex canescens* (Pursh) Nutt. — Shadscale or Wingscale

Saline flats

sAlta, eWash s to Calif, Tex. Mexico.

150 *Atriplex powellii* S. Wats. — Powell's Atriplex

Alkaline flats and badlands

Alta, swSask s to Ariz, NM.

151 *Atriplex truncata* (Torr.) Gray — Wedgescale

Strongly alkaline soils

sBC, seAlta, swSask s to Calif, Colo, Mo.

152 *Chenopodium atrovirens* Rydb. — Goosefoot

Open disturbed sites

BC, Alta s to eOre, Calif, Colo, Tex.

153 *Chenopodium incanum* (S. Wats.) Heller — Mealy Goosefoot

Alkaline soils

seAlta, swSask s to Calif, Nev, Utah, Tex.

154 *Chenopodium leptophyllum* (Nutt. *ex* Moq.) S. Wats. Narrow-leaved Goosefoot

Dry slopes

Alta to Man s to Tex, NM, Ariz, Calif. Mexico.

155 *Chenopodium subglabrum* (S. Wats.) A. Nels. Goosefoot
Chenopodium leptophyllum Nutt. var. *subglabrum* S. Wats.

Sandy blow-outs, river banks

Alta to swMan s to eWash, Ore, SD, Mo.

156 *Chenopodium watsonii* A. Nels. Watson's Goosefoot

Open areas

seAlta, swSask s to NM, Colo, Kans.

157 *Corispermum nitidum* Kit. Bugseed

Dry sands

sBC, cAlta, cSask, sMan s to Ariz, Tex, Mo; introd. in Ont. Eurasia.

158 *Suaeda moquinii* (Torr.) Greene Moquin's Sea Blite

Moist saline or alkaline areas

sAlta, swSask s to Calif, NM.

NYCTAGINACEAE (Four-o'clock Family)

159 *Abronia micrantha* Torr. Sand Verbena

Loose alluvial sands

sAlta s to eMont, Nev, NM, SD.

160 *Mirabilis nyctaginea* (Michx.) MacM. Umbrellawort

Dry plains

sBC to sMan, Wisc s to Colo, Tex, La, Ala.

PORTULACACEAE (Purslane Family)

161 *Lewisia pygmaea* (Gray) Robins. Dwarf Bitter-root

Rocky alpine slopes

sYuk, BC, swAlta s to sCalif, NM.

162 *Montia linearis* (Dougl.) Greene Slender-leaved Spring Beauty

Moist to dry sandy places

BC, sAlta, swSask s to sCalif, Mont.

163 *Montia parvifolia* (Moc.) Greene Small-leaved Spring Beauty

Moist ledges and slopes at higher elevations

seAlas, swYuk, BC, swAlta s to Calif, Utah.

CARYOPHYLLACEAE (Pink Family)

164 *Arenaria longipedunculata* Hult. Sandwort

Moist gravelly alpine areas

Alas, Yuk, wMack s to BC, swAlta.

165 *Minuartia elegans* (Cham. & Schlecht.) Schischk. Showy Sandwort
Arenaria rossii R. Br. *ex* Richards.

Gravelly alpine slopes

Alas, Yuk, s to swAlta. eSiberia.

166 *Minuartia nuttallii* (Pax) Briq. Nuttall's Sandwort
Arenaria nuttallii Pax

Gravelly benches or talus on alpine slopes

sBC, swAlta s to nCalif, Utah, Wyo.

167 *Sagina nivalis* (Lindbl.) Fries Snow Pearlwort

Alpine slopes

Alas to Ellesmere Is s to nBC, sYuk, nMack, Huds Bay, nQue, Lab; swAlta; James Bay. Circumpolar.

168 *Sagina nodosa* (L.) Frenzl — Pearlwort

Damp rocky, gravelly, or peaty places

wMack to sBaffin Is, Nfld s to nAlta, nSask, cMan, Lk Superior, Mass. Eurasia.

169 *Silene antirrhina* L. — Sleepy Catchfly

Dry, open areas

sBC; neAlta to NB, generally distributed s.

170 *Silene furcata* Raf.
Lychnis affinis J. Vahl. — Mountain Cockle

Turfy alpine slopes

Alas to Ellesmere Is s to BC, swAlta, sMack, Huds Bay, nQue. Circumpolar.

171 *Spergularia marina* (L.) Griseb. — Salt-marsh Sand Spurry

Brackish or saline muds and sands

BC, sMack, neAlta to James Bay, Que, Nfld s to Calif, Tex, nFla. More or less circumpolar. S America.

172 *Stellaria americana* (Porter) Standl. — Alpine Chickweed or Starwort

Talus slopes

swAlta, Mont.

173 *Stellaria arenicola* Raup — Sand Chickweed

Sand dunes

neAlta, nwSask.

174 *Stellaria crispa* Cham. & Schlecht. — Mountain Chickweed

Moist lower montane woods

sAlas, sYuk, BC, swAlta s to Calif, Wyo.

175 *Stellaria obtusa* Engelm. Meadow Chickweed

Damp meadows and stream banks

seBC, swAlta s to Calif, Colo; ? sAlas.

176 *Stellaria umbellata* Turcz. Umbellate Chickweed

Moist meadows and banks at higher elevations

Alas, BC, swAlta s to Calif, Colo. Siberia.

NYMPHAEACEAE (Water-lily Family)

177 *Nymphaea tetragona* Georgi Small White Water-lily

Ponds and quiet waters

Alas; Yuk; swMack; neAlta; sMan, nwOnt; Que; Me; Mass; BC, Wash, Ida. Eurasia.

RANUNCULACEAE (Crowfoot Family)

178 *Anenome quinquefolia* L. Wood Anemone

Moist woods

wAlta; eSask to NS s to Ia, Ill, Mich, Ky, NC, wNY.

179 *Aquilegia formosa* Fisch. Crimson Columbine

Open woods and rocky slopes

sAlas to Calif e to Alta, Mont, Utah.

180 *Aquilegia jonesii* Parry Jones' Columbine

Talus slopes, rock crevices

swAlta s to nwWyo.

181 *Myosurus aristatus* Benth. *ex* Hook. Awned Mousetail

Prairie mudflats and moist depressions

BC to Sask s to Calif, Utah, Wyo.

182 *Ranunculus nivalis* L. Snow Buttercup

Moist alpine areas, often near melting snowbeds

Alas to Ellesmere Is, Lab s to nBC, wMack, Huds Bay; swAlta. Circumpolar.

183 *Ranunculus occidentalis* Nutt. Western Buttercup

Moist mountain meadows

sAlas, Yuk s to Ore, swAlta.

184 *Ranunculus verecundus* Robins. Buttercup

Wet slopes

sAlas s to Wash, Ida, Mont, swAlta.

185 *Thalictrum dasycarpum* Fisch. & Lall. Tall Meadow-rue

Meadows, swampy ground and damp thickets

sBC to wQue, s to Wash, Ariz, NM, Tex, La, Ohio.

PAPAVERACEAE (Poppy Family)

186 *Papaver freedmanianum* D. Löve Freedman's Alpine Poppy

Loose shale slopes

Alas, Yuk, wMack; swAlta.

187 *Papaver pygmaeum* Rydb. Dwarf Alpine Poppy

Scree slopes and rocky ridges

seBC, swAlta s to nwMont.

CAPPARIDACEAE (Caper Family)

188 *Polanisia dodecandra* (L.) DC
Polanisia trachysperma T. & G. Clammyweed

Sandy or gravelly soils

sBC to sMan s to Calif, Tex, Tenn, Md. Mexico.

CRUCIFERAE (Mustard Family)

189 *Braya purpurascens* (R.Br.) Bunge — Purple-leaved Braya

Moist alpine scree slopes

Alas, wMack to Ellesmere Is, nLab s to nHuds Bay; swAlta. Circumpolar.

190 *Cardamine parviflora* L. — Small Bitter Cress

Sandy soil and dry woods

sBC, nwAlta, cSask to Nfld s to Ore, Tex, Minn, nFla. Eurasia.

191 *Cardamine pratensis* L. — Meadow Bitter Cress

Bogs and swamps

Alas to Ellesmere Is, Nfld s to nBC, Alta, sMan, Gt Lakes, NC, NS. Circumpolar.

192 *Draba densifolia* Nutt. — Dense-leaved Whitlow Cress

Talus slopes and alpine ledges

swAlta s to nCalif, Utah, Wyo.

193 *Draba fladnizensis* Wulf. — Fladnitz Whitlow Cress

Alpine gravels and scree slopes

Alas to nEllesmere Is, Lab s to BC, Utah, Colo, nMan, Que. Circumpolar.

194 *Draba kananaskis* Mulligan — Kananaskis Whitlow Cress

Alpine slopes

swAlta.

195 *Draba longipes* Raup — Long-stalked Whitlow Cress

Moist alpine tundra and snowbeds, scree slopes and rock ledges

Alas, wMack, BC, wAlta.

196 *Draba ventosa* Gray — Whitlow Cress

Alpine ridges and scree slopes

swAlta; Wyo, Utah, Colo.

197 *Halimolobos virgata* (Nutt.) Schulz — Halimolobos

Dry benches and eroded hillsides

seAlta, swSask s to Calif, Colo, Utah.

198 *Lesquerella arctica* (Wormsk.) S. Wats. — Northern Bladderpod

Dry calcareous slopes

Alas to nEllesmere Is, Nfld s to BC, swAlta, neMan, nLab, eQue. Greenland. nAsia.

199 *Rorippa tenerrima* Greene
Rorippa obtusa (Nutt.) Britt. — Slender Yellow Cress

Moist, usually sandy soil

sBC, Alta to swQue s to Calif, Tex, Mo, Mich, WVa.

200 *Thellungiella salsuginea* (Pall.) Schulz — Mouse-ear Cress

Saline shores and flats

sYuk, wMack, BC to nMan. Eurasia.

DROSERACEAE (Sundew Family)

201 *Drosera linearis* Goldie — Slender-leaved Sundew

Marly bogs and wet calcareous shores

BC, Alta, cSask to Que s to Minn, Mich, Me; Nfld.

CRASSULACEAE (Orpine Family)

202 *Sedum divergens* S. Wats. — Spreading Stonecrop

Rocky ledges, ridges, and talus slopes

BC, swAlta s to Ore.

203 *Sedum stenopetalum* Pursh — Douglas Stonecrop
Sedum douglasii Hook.

Dry gravelly slopes

sBC, swAlta s to Ore, Mont.

SAXIFRAGACEAE (Saxifrage Family)

204 *Heuchera glabra* Willd. — Alpine Alum-root

Screes, ledges and slopes about timberline

sAlas, BC, wAlta s to Ore.

205 *Lithophragma glabrum* Nutt. *ex* T. & G. — Prairie Rockstar

Meadows and springs, moist slopes

sBC, swAlta; swSask s to Calif, Colo; SD.

206 *Lithophragma parviflorum* (Hook.) T. & G. — Small-flowered Rockstar

Moist meadows and open woods

sBC, swAlta s to nCalif, Colo; SD.

207 *Saxifraga mertensiana* Bong. — Merten's Saxifrage

Moist rock crevices, ledges and scree slopes

sAlas, BC, swAlta s to Calif, nMont.

208 *Saxifraga nivalis* L. — Snow Saxifrage

Alpine slopes and ledges

Alas to Ellesmere Is, Lab s to BC, swAlta, nMack, Huds Bay; Gaspé. Circumpolar.

209 *Saxifraga odontoloma* Piper — Saxifrage

Moist meadows and woods

sBC, swAlta s to Calif, NM.

210 *Saxifraga oregana* Howell — Oregon Saxifrage

Moist mountain meadows

swAlta, Mont, Wash s to Calif, Colo.

211 *Suksdorfia ranunculifolia* (Hook.) Engl. — White Suksdorfia
Hemieva ranunculifolia (Hook.) Raf.

Moist mossy rocks

BC, swAlta s to nCalif, Ida, Mont.

212 *Suksdorfia violacea* Gray — Blue Suksdorfia

Rock crevices, mossy banks

sBC, swAlta s to Ore, Ida, nwMont.

213 *Telesonix heucheriformis* Rydb. — Telesonix

Rocky outcrops and talus slopes at alpine elevations

wAlta; Mont; Wyo; Nev; SD.

HYDRANGEACEAE (Hydrangea Family)

214 *Philadelphus lewisii* Pursh — Mock Orange

Moist mountain woods

sBC, swAlta s to Ore, Ida, Mont.

GROSSULARIACEAE (Currant or Gooseberry Family)

215 *Ribes inerme* Rydb. — Mountain Gooseberry

Moist woods

sBC, swAlta s to Calif, NM.

216 *Ribes laxiflorum* Pursh — Trailing Black Currant

Wet subalpine woods

sAlas, BC, swAlta s to Calif, nIda. eAsia.

217 *Ribes viscosissimum* Pursh — Sticky Currant

Moist mountain woods

sBC, swAlta s to Calif, nwColo.

ROSACEAE (Rose Family)

218 *Aruncus sylvester* Kost. — Goatsbeard

Moist woods

Alas, BC, Alta s to nwCalif. Eurasia, Japan.

219 *Crataegus douglasii* Lindl. — Douglas Hawthorn

Open woods and rocky banks

sAlas, BC, sAlta, swSask s to Calif, SD, wOnt, Minn, Mich.

220 *Physocarpus malvaceus* (Greene) Kuntze — Mallow-leaved Ninebark

Rocky ravines, hillsides, and coniferous forest

seBC, swAlta s to Ore, Utah, Wyo.

221 *Potentilla finitima* Kohli & Packer — Cinquefoil

Sandy prairie

sAlta to sMan s to ND, wMinn.

222 *Potentilla multifida* L. — Branched Cinquefoil

Open areas and gravel bars

Alas, wMack, neAlta to Que. Eurasia.

223 *Potentilla paradoxa* Nutt. — Bushy Cinquefoil

Moist flats and shores

sBC, seAlta to sOnt s to NM, Kans, La, Ohio, wNY. Mexico.

224 *Potentilla plattensis* Nutt. *ex* T. & G. — Low Cinquefoil

Prairie grassland, dry flats

sAlta, swMan s to Ariz, NM, SD.

225 *Potentilla villosa* Pallas — Hairy Cinquefoil

Rocky outcrops, scree slopes, alpine meadows

Alas, sYuk, BC, swAlta, Wash. neAsia.

226 *Sorbus sitchensis* Roemer — Western Mountain Ash

Moist mountain woods

sAlas, Yuk, BC, swAlta s to nCalif, Ida, Mont.

227 *Spiraea densiflora* Nutt. — Pink Meadowsweet

Moist meadows, thickets and woods

sBC, swAlta s to Calif, Mont.

LEGUMINOSAE (Pea Family)

228 *Astragalus kentrophyta* Gray — Prickly Milk Vetch

Sandy prairie and eroded slopes

sAlta, swSask s to Wyo, nwNeb, ND.

229 *Astragalus lotiflorus* Hook. — Low Milk Vetch

Dry slopes and prairie

sBC, sAlta to swMan s to Mont, Tex, Mo, Minn.

230 *Astragalus purshii* Dougl. *ex* Hook. — Pursh's Milk Vetch

Dry grassland and eroded slopes

sBC, seAlta, swSask s to nCalif, Colo, ND.

231 *Lupinus polyphyllus* Lindl. Large-leaved Lupine

Moist woods

sAlas, BC, Alta s to Calif, Colo.

232 *Lupinus pusillus* Pursh Low Annual Lupine

Sand hills, sandy shores and dry eroded slopes

sAlta, swSask s to Calif, Ariz, ND.

233 *Oxytropis jordalii* Porsild Jordal's Locoweed

Turfy alpine slopes

Alas, Yuk, swMack, nBC; Alta.

234 *Oxytropis lagopus* Nutt. Hare-footed Locoweed

Gravelly soil in dry grassland

swAlta s to Ida, Wyo.

GERANIACEAE (Geranium Family)

235 *Geranium carolinianum* L. Carolina Wild Geranium
Geranium sphaerospermum Fern.

Dry rocky woods, disturbed sites

BC, Alta to wOnt, s to nCalif, Mont, SD, Kans, Mo, Tenn, NC.

236 *Geranium erianthum* DC. Woolly Geranium

Moist woods

Alas, sYuk, BC, swAlta

POLYGALACEAE (Milkwort Family)

237 *Polygala paucifolia* Willd. Fringed Milkwort

Marshy coniferous woods

neAlta, cSask to NB s to Iowa, Ind, Ga, NC.

CELASTRACEAE (Bittersweet Family)

238 *Pachistima myrsinites* (Pursh) Raf. Mountain Lover or Mountain Boxwood

Mountain woods, thickets, and slopes

BC, swAlta s to Calif, wColo.

RHAMNACEAE (Buckthorn Family)

239 *Ceanothus velutinus* Dougl. *ex* Hook. Snow-brush or Sticky Laurel

Dry woods, shrubby slopes

BC, swAlta s to Calif, Colo, SD.

MALVACEAE (Mallow Family)

240 *Iliamna rivularis* (Dougl. *ex* Hook.) Greene Mountain Hollyhock

Mountain slopes, meadows and stream banks

sBC, swAlta s to Ore, Colo.

HYPERICACEAE (St. John's-wort Family)

241 *Hypericum formosum* HBK Western St. John's-wort

Moist shores and meadows to near timberline

sBC, swAlta s to Calif. Mexico.

242 *Hypericum majus* (Gray) Britt. Large Canada St. John's-wort

Moist depressions in sand dunes, sandy shores

BC to NS s to Wash, Colo, Neb, Pa, Del.

ELATINACEAE (Waterwort Family)

243 *Elatine triandra* Schkuhr Waterwort

Muddy shores and shallow water

swMack, Alta to NB s to Calif, NM, Tex, Okla, Mo, Va. Eurasia.

VIOLACEAE (Violet Family)

244 *Viola glabella* Nutt. Yellow Mountain Violet

Moist woods and stream banks in mountains

sAlas, BC, swAlta s to nCalif, Mont.

245 *Viola macloskeyi* Lloyd MacLoskey's Violet

Boggy or wet ground and wet thickets

BC, sAlta s to Calif.

246 *Viola pedatifida* G. Don Crowfoot Violet

Dry grassland

Alta to sMan s to Wyo, Ariz, Okla, Ohio.

247 *Viola selkirkii* Pursh Great-spurred Violet

Moist woods

sAlas; seYuk; BC, swAlta; eSask, swMan; Gt Lakes to Nfld, Lab; Colo, NM. Circumpolar.

ONAGRACEAE (Evening Primrose Family)

248 *Boisduvalia glabella* (Nutt.) Walp. Smooth Boisduvalia

Dry mud flats

sBC to swSask s to Calif, Utah, SD.

249 *Epilobium glaberrimum* Barbey Willowherb
Epilobium platyphyllum Rydb.

Rocky alpine slopes

sBC, swAlta s to Calif, Utah.

250 *Epilobium halleanum* Hausskn. Hall's Willowherb

Moist ground

BC, Sask s to Calif, Ariz, Colo, SD.

251 *Epilobium leptocarpum* Hausskn. Slender-fruited Willowherb

Moist, open stony slopes

Alas s to nOre, cIda, Mont.

252 *Epilobium luteum* Pursh Yellow Willowherb or Fireweed

Moist woods and stream banks in mountains

sAlas, BC, wAlta s to Calif.

253 *Epilobium mirabile* Trel. Willowherb

Subalpine scree slopes

BC; swAlta, Mont; Wash.

254 *Epilobium saximontanum* Hausskn. Rocky Mountain Willowherb

Moist montane and subalpine meadows and stream banks

wAlta s to eOre, Calif, Ariz, NM; Huds Bay, nQue, Nfld; Gaspé.

255 *Gayophytum racemosum* T. & G. Groundsmoke

Open slopes and disturbed ground

swAlta s to Calif, Colo.

256 *Oenothera andina* Nutt. Upland Evening-primrose

Dry slopes and flats

sBC, seAlta, swSask s to Calif, Utah, Wyo.

257 *Oenothera breviflora* T. & G. Taraxia

Dry slough bottoms, alkaline shores

sBC, seAlta, swSask s to nCalif, Wyo.

258 *Oenothera flava* (A. Nels) Garrett — Low Yellow Evening-primrose

Slough margins, clay flats

sAlta, sSask s to Calif, NM.

259 *Oenothera serrulata* Nutt. — Shrubby Evening-primrose

Moist depressions in grasslands, gravel flats, sand dunes, disturbed sites

sAlta to sMan s to Ariz, NM, Tex, Mo, Wisc.

HIPPURIDACEAE (Mare's-tail Family)

260 *Hippuris montana* Ledeb. — Mountain Mare's-tail

Mossy banks and shallow streams

Alas to wMack, BC, swAlta s to nwWash.

UMBELLIFERAE (Carrot Family)

261 *Bupleurum americanum* C. & R. — Thoroughwax

Dry open areas to high elevations

Alas to wMack; seBC, swAlta s to eIda, Wyo. eAsia.

262 *Lomatium cous* (S. Wats.) C. & R. — Biscuit-root

Dry open slopes

seAlta, swSask s to neOre, Ida, Wyo.

263 *Lomatium sandbergii* C. & R. — Sandberg's Wild Parsley

Alpine screes and ridges

seBC, swAlta s to Ida, wMont.

264 *Osmorhiza chilensis* H. & A. — Blunt-fruited Sweet Cicely

Woods

sAlas, BC, swAlta s to Calif, Ariz, Colo, SD; Gt Lakes; Nfld s to NH. S America.

265 *Osmorhiza longistylis* (Torr.) DC. Smooth Sweet Cicely

Moist woods

sAlta to NB s to eWyo, Tex, Ga.

266 *Osmorhiza purpurea* (C. & R.) Suksd. Purple Sweet Cicely

Coniferous woods

sAlas, BC, swAlta s to Calif, nwMont.

PYROLACEAE (Wintergreen Family)

267 *Pyrola bracteata* Hook. Large Wintergreen

Moist woods

Alas, BC, swAlta s to nCalif, wMont.

268 *Pyrola picta* J.E. Smith White-veined Wintergreen

Coniferous woods

sBC, swAlta s to Calif, NM.

MONOTROPACEAE (Indian-pipe Family)

269 *Monotropa hypopitys* L. Pine-sap

Moist woods

Alas; BC, swAlta; swSask; Ont to Nfld s to Calif, Tex, Fla. Eurasia.

270 *Pterospora andromeda* Nutt. Pine-drops

Lodgepole pine and aspen woods

BC to swSask; Ont, Que; PEI s to Calif, Tex, SD, Wisc, NH. Mexico.

ERICACEAE (Heath Family)

271 *Ledum glandulosum* Nutt. Glandular Labrador Tea

Wet meadows and woods

BC, swAlta s to Calif, Wyo.

272 *Loiseleuria procumbens* (L.) Desv. Alpine Azalea

Moist alpine meadows and rocky slopes

Alas to Baffin Is, Lab s to Wash, wAlta, nwSask, nMan; Que, NH, Me. Circumpolar.

273 *Rhododendron lapponicum* (L.) Wahl. Lapland Rose-bay

Moist alpine slopes

Alas to Devon Is, Nfld s to nBC, sMack, Huds Bay, NY, NH, Me; swAlta; Wisc. Eurasia.

274 *Vaccinium ovalifolium* J.E. Smith Tall Huckleberry

Moist thickets and woods

sAlas, sYuk, BC, swAlta s to Ore, Mont; Lk Superior, Que, Lab, NS, Nfld. eAsia.

PRIMULACEAE (Primrose Family)

275 *Androsace occidentalis* Pursh Western Pygmyflower or Fairy Candelabra

Dry sands and gravels

sBC to wOnt s to Calif, MN, Tex, Ark.

276 *Centunculus minimus* L. Chaffweed

Dry slough bottoms and margins

sBC to sSask; NS s to Calif, Tex, Fla. S America, Europe.

277 *Douglasia montana* Gray Mountain Dwarf-primrose

Alpine ridges and scree slopes

swAlta s to nWyo.

278 *Lysimachia lanceolata* Walt. Lance-leaved Loosestrife
Lysimachia hybrida Michx.

Edge of ponds in thickets

sAlta to Que s to Wash, Ariz, NM, Tex, Fla.

279 *Primula egaliksensis* Wormsk. Greenland Primrose

Wet meadows and shores

Alas, Yuk, nwMack s to BC, swAlta; Huds Bay, nQue, Lab. Greenland.

280 *Primula stricta* Hornem. Erect Primrose

Moist alpine slopes

Alas, Victoria Id to Lab s to nBC, Alta, Huds Bay, nQue. Greenland, Iceland, nEurope.

GENTIANACEAE (Gentian Family)

281 *Gentiana calycosa* Griseb. Mountain Gentian

Moist alpine meadows and scree slopes

seBC, swAlta s to Mont.

282 *Gentianella detonsa* (Rottb.) G. Don Northern Fringed Gentian

Wet meadows, saline flats

Alas, Yuk, wMack, nAlta; Huds Bay. Greenland, Iceland, nEurope.

ASCLEPIADACEAE (Milkweed Family)

283 *Asclepias viridiflora* Raf. Green Milkweed

Dry prairie hillsides

sBC, sAlta to sOnt s to Ariz, Tex, Ga, NY.

POLEMONIACEAE (Phlox Family)

284 *Microsteris gracilis* (Hook.) Greene Microsteris

Moist meadows and thickets

sAlas, sYuk, sBC, swAlta s to Calif, NM. S America.

285 *Polemonium viscosum* Nutt. Skunkweed

Alpine scree slopes

sBC, wAlta s to Nev, NM.

HYDROPHYLLACEAE (Waterleaf Family)

286 *Hydrophyllum capitatum* Dougl. Woollen-breeches

Moist meadows and woods

sBC, swAlta s to Calif, Colo.

287 *Nemophila breviflora* Gray Small Baby-blue-eyes

Moist meadows and woods

sBC, swAlta s to Calif, Utah, Ida.

288 *Phacelia linearis* (Pursh) Holz. Narrow-leaved Scorpion-weed

Dry open slopes and shores

sBC, swAlta s to Calif, Utah, Wyo.

289 *Phacelia lyallii* (Gray) Rydb. Lyall's Scorpion-weed

Scree slopes

seBC, swAlta s to Ida, wMont.

BORAGINACEAE (Borage Family)

290 *Cryptantha minima* Rydb. Small Cryptanthe

Dry eroded slopes

seAlta, swSask s to Mont, Tex, SD.

291 *Mertensia lanceolata* (Pursh) DC. Prairie or Narrow-leaved Lungwort

Rocky ridges and slopes

sAlta, sSask s to NM, SD.

292 *Mertensia longiflora* Greene — Large-flowered Lungwort

Moist slopes and meadows

sBC, swAlta s to nCalif, Ida.

LABIATAE (Mint Family)

293 *Hedeoma hispidum* Pursh — Pennyroyal

Dry open sites

sAlta to Que s to Mont, Colo, Tex, La, NY.

SCROPHULARIACEAE (Figwort Family)

294 *Castilleja cusickii* Greenm. — Yellow Paintbrush

Moist meadows and grasslands

sBC, swAlta s to Ore, Wyo, Mont.

295 *Castilleja hispida* Benth. — Rough Red Paintbrush

Open woods, meadows

sBC, swAlta s to Ore, Ida.

296 *Castilleja sessiliflora* Pursh — Downy Paintbrush

Dry prairie grassland

sAlta to sMan s to Ariz, Tex, Mo, Ill, Wisc.

297 *Mimulus floribundus* Lindl. — Many-flowered Monkey-flower

Moist open sites

sBC, swAlta s to Calif, Mont.

298 *Mimulus guttatus* DC. — Yellow Monkey-flower

Stream margins, meadows, springs

Alas, Yuk, BC, sAlta, swSask s to Calif, NM, ND.

299 *Pedicularis lanata* Cham. & Schlecht. Woolly Lousewort

Alpine scree slopes, rocky ridges

Alas to Ellesmere Is s to BC, swAlta, nHuds Bay, nQue. Greenland, nEurope, nAsia.

300 *Pedicularis racemosa* Dougl. *ex* Benth. Leafy Lousewort

Dry open areas at high elevations

sBC, wAlta s to Calif, NM.

301 *Pedicularis sudetica* Willd. Sudeten Lousewort or Purple Rattle

Bogs and muskegs

Alas, Yuk to Ellesmere Is s to BC, nAlta, sMack, Huds Bay, Baffin Is. Eurasia.

302 *Penstemon eriantherus* Pursh Crested Beard-tongue

Dry open areas

seBC, swAlta s to Ore, Colo, Neb.

303 *Penstemon fruticosus* (Pursh) Greene Shrubby Beard-tongue

Rocky slopes and open woods

sBC, swAlta s to Wash, Ida.

304 *Veronica catenata* Pennell Water Speedwell
Veronica salina Schur.

Muddy shores and ditches

swBC, sAlta to Que s to Calif, NM, Okla, Mo, Ohio, Pa. Europe.

OROBANCHACEAE (Broom-rape Family)

305 *Boschniakia rossica* (Cham. & Schlect.) Fedtsch. Russian Ground-cone

Moist woods and thickets; parasitic on *Alnus crispa*

Alas, Yuk, wMack s to nBC, nAlta. Asia.

306 *Orobanche uniflora* L. One-flowered Broom-rape

Parasite on various plants in moist woods, thickets and grasslands

BC, swAlta, swSask; Ont to Nfld s to Calif, Tex, Fla.

LENTIBULARIACEAE (Bladderwort Family)

307 *Pinguicula villosa* L. Small Butterwort

Sphagnum bogs

Alas, Yuk, Mack to Huds Bay, nQue, Lab s to nBC, nAlta, nSask. Circumpolar.

308 *Utricularia cornuta* Michx. Horned Bladderwort

Bogs and lake shores

neAlta, nwSask; sMan to Lab s to eTex, Fla.

PLANTAGINACEAE (Plantain Family)

309 *Plantago maritima* L. Seaside Plantain

Saline marshes

Alas s to Calif; wMack, nAlta; Huds Bay, seBaffin Is to Nfld s to NJ. Circumpolar.

CAPRIFOLIACEAE (Honeysuckle Family)

310 *Lonicera utahensis* S. Wats. Red Twin-berry

Moist open woods

sBC, swAlta s to nCalif, Utah, Wyo.

LOBELIACEAE (Lobelia Family)

311 *Downingia laeta* Greene Downingia

Muddy shores often alkaline

sAlta, swSask s to Calif, Utah, wMont.

312 *Lobelia dortmanna* L. Water Lobelia

Shallow waters and shores of ponds and lakes

swBC to nOre; neAlta, nSask, Man to seLab s to Gt Lakes, Minn, Pa, NJ. nEurope.

COMPOSITAE (Composite Family)

313 *Adenocaulon bicolor* Hook. Pathfinder or Trail-plant

Moist woods and thickets

sBC, swAlta s to Calif, nwMont; SD; sOnt, nMinn, nMich.

314 *Antennaria corymbosa* A. Nels. Corymbose Pussytoes or Everlasting

Open woods and meadows

seAlta, swSask s to Utah, Colo.

315 *Antennaria dimorpha* (Nutt.) T. & G. Cushion Everlasting

Dry prairie

sBC to swSask s to Calif, Colo, Neb.

316 *Antennaria luzuloides* T. & G. Silvery Pussytoes or Everlasting

Dry rocky sites

sBC, swAlta s to nCalif, Colo.

317 *Arnica longifolia* D.C. Eat. Long-leaved Arnica

Rocky slopes and cliffs

swAlta s to Calif, Colo.

318 *Arnica parryi* Gray Nodding Arnica

Open woods, grassy slopes, scree slopes

sBC, swAlta s to Calif, Colo.

319 *Artemesia borealis* Pallas — Northern Wormwood

Dry alpine slopes

Alas to Baffin Is, Nfld s to nWash, nMont, wAlta, nOnt, Que. Greenland, Asia.

320 *Artemisia furcata* Bieb. — Forked Wormwood

Rocky alpine slopes

Alas, Yuk, nwMack; swAlta; Wash. eAsia.

321 *Artemesia tridentata* Nutt. — Big Sagebrush

Dry hills

sBC, swAlta s to sCalif, NM, ND.

322 *Aster campestris* Nutt. — Meadow Aster

Dry open areas

sBC, swAlta s to Calif, Utah.

323 *Aster paucifloras* Nutt. — Few-flowered Aster

Saline shores and depressions

swMack; eAlta to Man s to Ariz, Tex.

324 *Aster umbellatus* Mill. — Flat-topped White Aster

Moist woods, thickets and meadows

Alta; seSask to NB s to Neb, Iowa, Mich.

325 *Bidens frondosa* L.
Bidens vulgata Greene — Tall Beggar-ticks

Moist shores, ditches

BC, sAlta to NS s to Calif, Mo, Ga.

326 *Brickellia grandiflora* (Hook.) Nutt. Large-flowered Brickellia

Dry slopes, shores, roadsides

swAlta s to Calif, NM, Neb, Ark.

327 *Cirsium scariosum* Nutt. Thistle

Open woods and slopes

seBC, swAlta s to Nev, Wyo; Que.

328 *Crepis atrabarba* Heller Slender Hawksbeard

Dry grassy slopes

sBC, swAlta, swSask s to Nev, Colo.

329 *Crepis occidentalis* Nutt. Western Hawksbeard

Dry eroding slopes

sBC, sAlta, swSask s to Calif, NM, SD.

330 *Erigeron divergens* T. & G. Spreading Fleabane

Dry gravelly or sandy areas

sBC, swAlta s to Calif, NM, Okla.

331 *Erigeron flagellaris* Gray Creeping Fleabane

Dry open woods

sBC, swAlta; wWyo, SD, Tex, Ariz.

332 *Erigeron hyssopifolius* Michx. Wild Daisy

Gravelly shores and meadows

sYuk, nBC to Huds Bay, Que to Nfld s to Mich, NY, Vt.

333 *Erigeron ochroleucus* Nutt. Yellow Alpine Fleabane

Dry hills, scree slopes

swAlta s to Wyo, Neb.

334 *Erigeron purpuratus* Greene — Purple Alpine Fleabane
Erigeron pallens Cronq.

Alpine scree slopes

Alas, Yuk, wMack, nBC; sBC, wAlta.

335 *Erigeron radicatus* Hook. — Dwarf Fleabane

Dry ridges, scree slopes

Alta, swSask.

336 *Eupatorium purpureum* L. — Joe Pye-weed

Wet meadows and thickets

BC, nAlta, Sask to Nfld s to Utah, NM, Ill, Mich, NS.

337 *Franseria acanthicarpa* (Hook.) Coville — Bur-ragweed

Sandy prairie

seAlta to swMan s to Calif, Tex.

338 *Gnaphalium microcephalum* Nutt. — Tall Cudweed

Dry open sites, often sandy or rocky

sBC, swAlta s to Calif, Colo.

339 *Gnaphalium viscosum* HBK — Clammy Cudweed

Meadows, openings in woods

sBC, swAlta s to Ore, NM; Ont to NS s to Tenn, Pa.

340 *Haplopappus uniflorus* (Hook.) T. & G. — One-flowered Iron-plant

Dry to moist open slopes, sometimes disturbed

swMack, wAlta.

341 *Hymenopappus filifolius* Hook. Tufted Hymenopappus

Dry, gravelly or sandy sites

sAlta, sSask s to Colo, Neb.

342 *Lygodesmia rostrata* Gray Annual Skeleton-weed

Dry sandy prairie

sAlta to swMan s to Colo, Neb.

343 *Machaeranthera tanacetifolia* (HBK) Nees Tansy-leaved Aster
Aster tanacetifolius Nees

Dry plains and hillsides

swAlta s to Ariz, Tex, Neb.

344 *Microseris nutans* (Geyer) Schultz-Bip. Nodding Microseris

Mesic grassy slopes, open woods

sBC, swAlta s to Calif, Utah, Colo.

345 *Nothocalais cuspidata* (Pursh) Greene Prairie False Dandelion
Microseris cuspidata (Pursh) Schultz-Bip.

Early-drying clay flats

sAlta to swMan s to Colo, Okla, Ill, Wisc.

346 *Prenanthes alata* (Hook.) Dietr. Wing-leaved Rattlesnake-root

Moist woods, stream banks

sAlas, wBC, Alta s to Ore.

347 *Prenanthes sagittata* (Gray) A. Nels. Arrow-leaved Rattlesnake-root

Moist banks and thickets

swAlta s to nIda, wMont.

348 *Psilocarphus elatior* Gray — Woolly-heads

Dry slough bottoms

swBC, seAlta s to Ore, Ida.

349 *Saussurea americana* D.C. Eat. — Tall Saw-wort

Moist meadows

seAlas, sYuk, BC, swAlta s to nCalif, Ida.

350 *Senecio cymbalarioides* Buek — Alpine Groundsel
Senecio subnudus DC.

Moist alpine meadows and stream banks

BC, swAlta s to Calif, Wyo.

351 *Senecio hydrophiloides* Rydb. — Ragwort

Moist sites in grasslands and open woods

swAlta s to Calif, Colo; SD.

352 *Senecio megacephalus* Nutt. — Large-flowered Ragwort

Open mountain slopes

seBC, swAlta s to nIda, Mont.

353 *Stephanomeria runcinata* Nutt. — Rush-pink
Stephanomeria tenuifolia (Torr.) Hall

Dry, open sites, eroded slopes

sAlta, swSask s to nColo, Nebr.

354 *Tanacetum huronense* Nutt. — Indian Tansy

Sand dunes, sandy and gravelly shores

Alas, Yuk, nwMack, nBC; neAlta, nwSask; Huds Bay; Gt Lakes; NB to Nfld.

355 *Thelesperma marginatum* Rydb. Tickseed

Dry open sites, eroded slopes

seAlta s to wMont, swWyo.

356 *Townsendia condensata* Eat. Townsendia

Dry ridges

swAlta s to Ida, nwMont, Wyo.

ADDENDUM

CYPERACEAE

357 *Carex oligosperma* Michx. Few-fruited Sedge

Wet meadows and bogs

swMack, nAlta, nSask to James Bay, Lab, Nfld s to sMan, Wisc, Ind, Pa, Conn.

358 *Scirpus rufus* (Huds.) Schrad. Red Bulrush

Saline marshes

sAlas; swMack; Huds Bay; Que, Nfld, NS; sAlta to sSask, sMan. Circumpolar with gaps.

PORTULACACEAE

359 *Lewisia rediviva* Pursh Bitter-root

Dry, rocky, exposed areas in foothills

sBC, swAlta s to Calif, Ariz, Colo.

RUBIACEAE

360 *Galium bifolium* S. Wats. Two-leaved Bedstraw

Dry, open (often disturbed) areas in foothills

sBC, swAlta s to Calif, Colo.

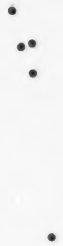
DISTRIBUTION

MAPS

1 *Isoetes bolanderi*

2 *Isoetes echinospora*

3 *[illegible]*

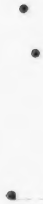


4 *Selaginella wallacei*

5 *Selaginella wallacei*

6 *Botrychium lanceolatum*

7 *Botrychium [illegible]*



8 *Botrychium simplex*

9 *Adiantum pedatum*

10 *Athyrium distentifolium*

11 *Cheilanthes gracillima*

12 *Cystopteris montana*

13 Dryopteris cristata *14 Dryopteris filix-mas* *15 Dryopteris fragrans* *16 Gymnocarpium jessoense*

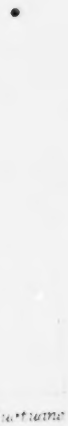
17 Pellaea atropurpurea *18 Polystichum connectilis* *19 Polypodium hesperium* *20 Polypodium virginianum*

21 Pteridium aquilinum *22 Woodsia glabella* *23 Woodsia ilvensis* *24 Larix occidentalis*

25 *Pinus monticola*

26 *Tsuga heterophylla*

27 *Juncus brevifolia*



28 *Sparganium fluctuans*

29 *Sparganium hyperboreum*

30 *Potamogeton obtusifolius*

31 *Potamogeton robbinsii*

32 *Isoetes maritima*

33 *Lilaea scilloides*

34 *Sagittaria latifolia*

35 *Agropyron scribneri*

36 *Agrostis humilis*

37 *Agrostis mertensii*

38 *Agrostis thurberiana*

39 *Arctagrostis arundinacea*

40 *Aristida longiseta*

41 *Bromus ciliatus*

42 *Bromus vulgaris*

43 *Calamagrostis lapponica*

44 *Danthonia spicata*

45 *Danthonia unispicata*

46 *Dichanthelium acuminatum*

47 *Dichanthelium leibergii*

48 *Dichanthelium oligosanthes*

49 *Elymus mollis*

50 *Festuca altaica*

51 *Festuca occidentalis*

52 *Festuca subulata*

53 *Glyceria elata*

54 *Hierochloe alpina*

55 *Hordeum pusillum*

56 *Melica smithii*

57 *Melica subulata*

58 *Muhlenbergia asperifolia*

59 *Muhlenbergia racemosa*

60 *Munroa squarrosa*

61 *Oryzopsis canadensis*

62 *Oryzopsis exigua*

63 *Oryzopsis micrantha*

64 *Poa gracillima*

65 *Poa lettermanii*

66 *Poa nevadensis*

67 *Poa stenantha*

68 *Puccinellia hauptiana*

69 *Puccinellia pauciflora*

70 *Schedonnardus paniculatus*

71 *Spartina pectinata*

72 *Trisetum canescens*

73 *Trisetum cernuum*

74 *Trisetum montanum*

75 *Vulpia octoflora*

76 *Carex aduста*

77 *Carex aperta*

78 *Carex bipartita*

79 *Carex crawei*

80 *Carex deflexa*

81 *Carex enanderi*

82 *Carex epapillosa*

83 *Carex geyeri*

84 *Carex glacialis*

85 *Carex hystricina*

86 *Carex illota*

87 *Carex kelloggii*

88 *Carex lacustris*

89 *Carex lenticularis*

90 *Carex loliacea*

91 *Carex mertensii*

92 *Carex misandra*

93 *Carex nebraskensis*

94 *Carex paysonis*

95 *Carex preslii*

96 *Carex pseudo-cyperus*

97 *Carex scoparia*

99 *Carex eburna*

98 *Carex tinctorum*

100 *Carex oligocarpa*

101 *Carex vesicaria*

102 *Carex vulpinoidea*

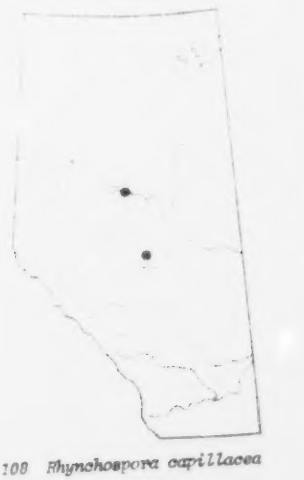
103 *Cyperus acuminatus*

104 *Cyperus schweinitzii*

105 *Eleocharis compressa*

106 *Eleocharis ovata*

107 *Eriophorum gracile*



108 *Rhynchospora capillacea*

109 *Juncus clintonii*

110 *Juncus mexicanus*

111 *Juncus fluviatilis*

112 *Juncus nevadensis*

113 *Juncus pallidus*

114 *Juncus bijugis*

115 *Juncus brevicaulatus*

116 *Juncus filiformis*

117 *Juncus nevadensis*

118 *Luzula acuminata*

119 *Luzula hitchcockii*

120 *Allium geyeri*

121 *Disporum hookeri*

122 *Streptopus roseus*

123 *Streptopus streptopoides*

124 *Trillium ovatum*

125 *Xerophyllum tenax*

126 *Yucca glauca*

127 *Iris missouriensis*

128 *Cypripedium acaule*

129 *Cypripedium montanum*

130 *Habenaria saccata*

131 *Habenaria unalaschensis*

132 *Listera cauriina*

133 Platanthera convallariifolia

134 Valeriana uliginosa

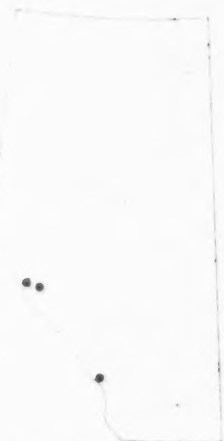
135 Valeriana pauciflora

136 Salix alaxensis

137 Salix bebbiana

138 Salix lanata

139 Salix alaxensis



140 Salix stolonifera

141 Parietaria pensylvanica

142 Eriogonum cernuum

143 Koenigia islandica

144 Polygonum austiniae

145 *Polygonum engelmanii*

146 *Polygonum minimum*

147 *Polygonum watsonii*

148 *Rumex paucifolius*

149 *Atriplex canescens*

150 *Atriplex powellii*

151 *Atriplex truncata*

152 *Chenopodium atrovirens*

153 *Chenopodium incanum*

154 *Chenopodium leptophyllum*

155 *Chenopodium subglabrum*

156 *Chenopodium watsonii*

157 *Corispermum nitidum*

158 *Suaeda moquinii*

159 *Abronia micrantha*

160 *Mirabilis nyctaginea*

161 *Lewisia pygmaea*

162 *Montia linearis*

163 *Montia parvifolia*

164 *Arenaria longipedunculata*

165 *Minuartia elegans*

166 *Minuartia nuttallii*

167 *Sagina nivalis*

168 *Sagina nodosa*

169 *Silene antirrhina*

170 *Silene furcata*

171 *Spergularia marina*

172 *Stellaria crassifolia*

173 *Stellaria arenicola*

174 *Stellaria crispa*

175 *Stellaria longipes*

176 *Stellaria umbellata*

177 *Nymphaea tetragona*

178 *Anemone quinquefolia*

179 *Aquilegia formosa*

180 *Aquilegia jonesii*

181 *Thysanocarpus curvipes*

182 *Ranunculus nivalis*

183 *Ranunculus occidentalis*

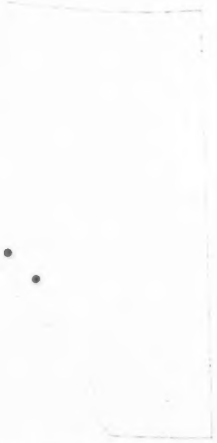
184 *Ranunculus verecundus*

185 *Thalictrum sparsiflorum*

186 *Papaver freedmanianum*

187 *Papaver pygmaeum*

188 *Polanisia dodecandra*



189 *Draba purpurascens*

190 *Cardamine parviflora*

191 *Cardamine pratensis*

192 *Draba densifolia*

193 Draba fladnizensis

194 Draba kananaskis

195 Draba longipes

196 Draba ventosa

197 Halimolobos virgata

198 Lesquerella arctica

199 Rorippa tenerrima

200 Thelypodiella eglandulosa

201 Drosera linearis

202 Sedum divergens

203 Sedum stenopetalum

204 Heuchera glabra

205 *Lithophragma glabra*

206 *Lithophragma parviflora*

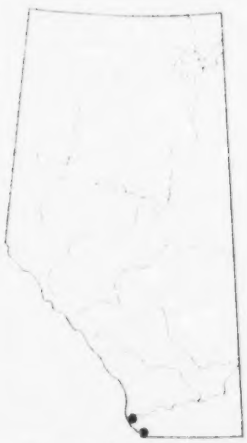
207 *Saxifraga mertensiana*

208 *Saxifraga nivalis*

209 *Saxifraga odontoloma*

210 *Saxifraga oregana*

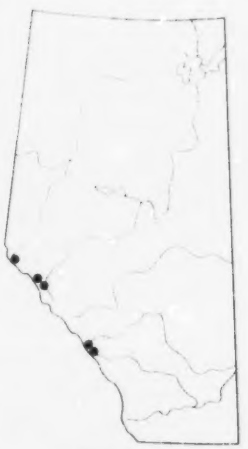
211 *Suksdorfia ranunculifolia*



212 *Suksdorfia violacea*

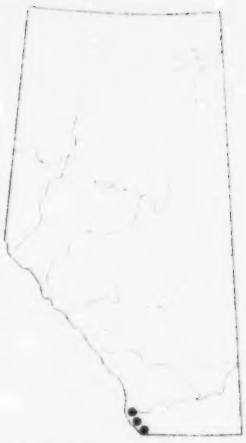
213 *Telesonix jamesii*

214 *Philadelphus lewisii*

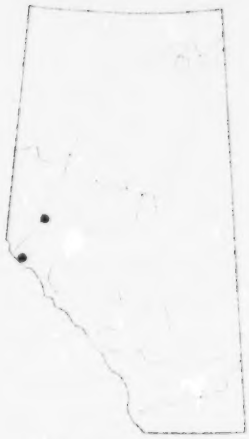


215 *Ribes inerme*

216 *Ribes laxiflorum*



217 *Ribes viscosissimum*

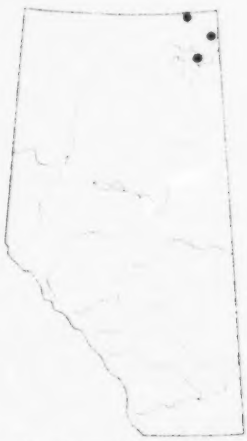


218 *Amelanchier alnifolia*

219 *Crataegus douglasii*

220 *Physocarpus malvaceus*

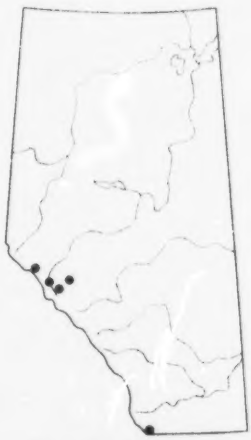
221 *Potentilla finitima*



222 *Potentilla multifida*

223 *Potentilla paradoxa*

224 *Potentilla plattensis*



225 *Potentilla villosa*

226 *Sorbus sitchensis*

227 *Spiraea densiflora*

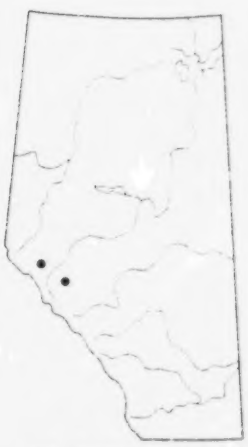
228 *Astragalus kentrophyta*

229 *Astragalus lotiflorus*

230 *Astragalus purshii*

231 *Lupinus polyphyllus*

232 *Lupinus pusillus*



233 *Oxytropis jordalii*

234 *Oxytropis lagopus*

235 *Geranium carolinianum*

236 *Geranium erianthum*

237 *Polygala paucifolia*

238 *Pachistima myrsinites*

239 *Ceanothus velutinus*

240 *Iliamna rivularis*

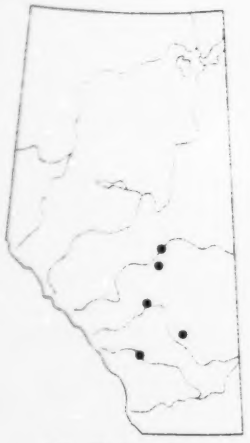
241 *Hypericum formosum*

242 *Hypericum majus*

243 *Elatine triandra*

244 *Viola glabella*

245 *Viola macloskeyi*



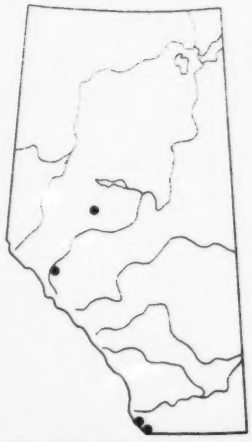
246 *Viola pedatifida*

247 *Viola selkirkii*

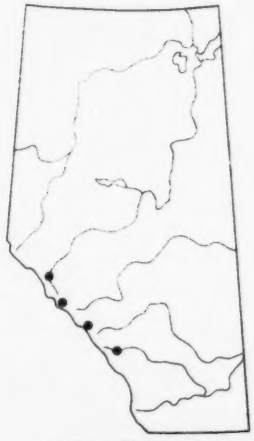
248 *Boisduvalia glabella*

249 *Epilobium glaberrimum*

250 *Epilobium halleanum*

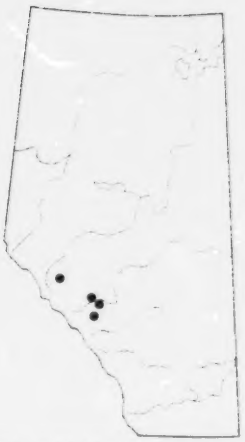


251 *Epilobium leptocarpum*



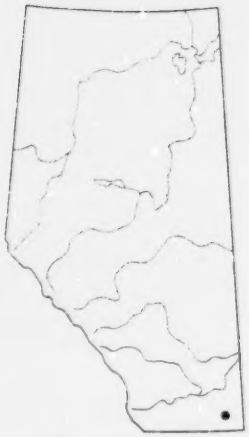
252 *Epilobium luteum*

253 *Epilobium mirabile*



254 *Epilobium saximontanum*

255 *Gayophytum racemosum*

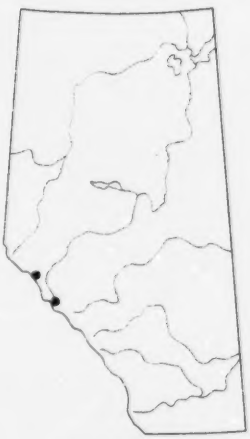


256 *Oenothera andina*

257 *Oenothera breviflora*

258 *Oenothera flava*

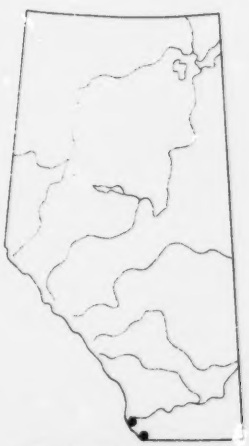
259 *Oenothera serrulata*



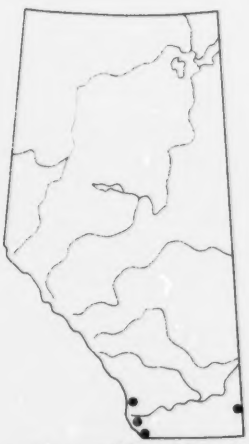
260 *Hippuris montana*

261 *Bupleurum americanum*

262 *Lomatium oous*



263 *Lomatium sandbergii*



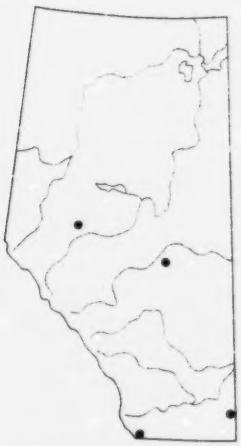
264 *Osmorhiza chilensis*

265 *Osmorhiza longistylis*

266 *Osmorhiza purpurea*

267 *Pyrola bracteata*

268 *Pyrola picta*

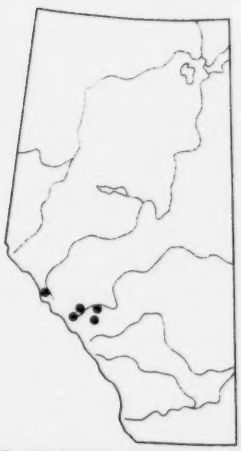


269 *Monotropa hypopitys*

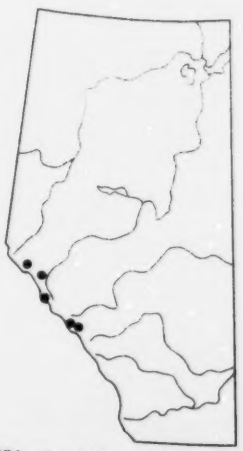
270 *Pterospora andromeda*

271 *Ledum glandulosum*

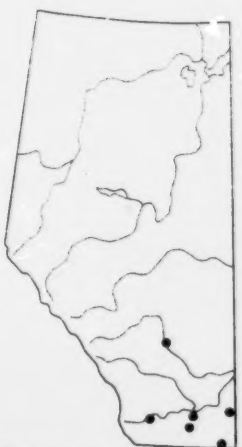
272 *Loiseleuria procumbens*



273 *Rhododendron lapponicum*



274 *Vaccinium ovalifolium*



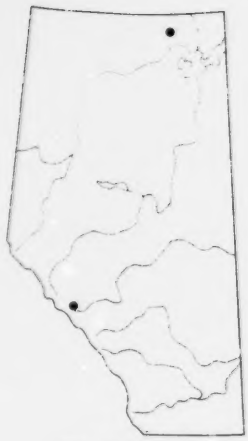
275 *Androsace occidentalis*

276 *Centunculus minimus*

277 *Douglasia montana*

278 *Lysimachia lanceolata*

279 *Primula egaliksensis*



280 *Primula stricta*

281 *Gentiana calycosa*

282 *Gentianella detonsa*

283 *Asclepias viridiflora*

284 *Microsteris gracilis*

285 *Polemonium viscosum*

286 *Hydrophyllum capitatum*

287 *Nemophila breviflora*

288 *Phacelia linearis*

289 *Phacelia lyallii*

290 *Cryptantha minima*

291 *Mertensia lanceolata*

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293 *Hedeoma hispidum*

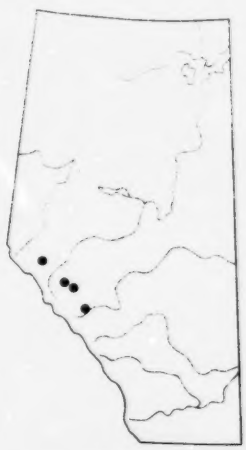
294 *Castilleja cusickii*

295 *Castilleja hispida*

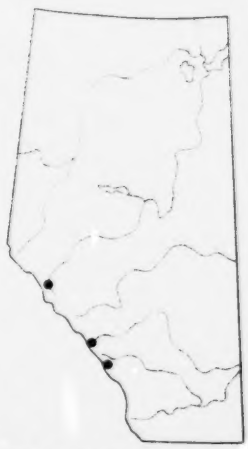
296 *Castilleja sessiliflora*

297 *Mimulus floribundus*

298 *Mimulus guttatus*



299 *Pedicularis lanata*



300 *Pedicularis racemosa*

301 *Pedicularis sudetica*

302 *Penstemon eriantherus*

303 *Penstemon fruticosus*

304 *Veronica catenata*

305 *Boschniakia rossica*

306 *Orobanche uniflora*

307 *Pinguicula villosa*

308 *Utricularia cornuta*

309 *Plantago maritima*

310 *Lonicera utahensis*

311 *Downingia laeta*

312 *Lobelia dortmanna*

313 *Adenocaulon bicolor*

314 *Antennaria corymbosa*

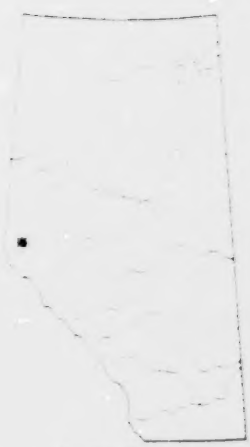
315 *Antennaria dimorpha*

316 *Antennaria luzuloidee*

317 *Arnica longifolia*

318 *Arnica parryi*

319 *Artemisia borealis*

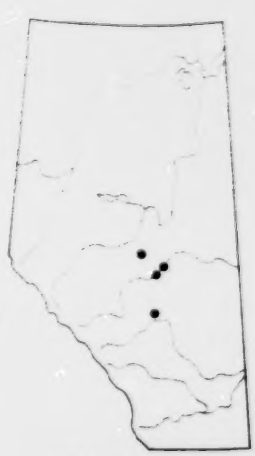


320 *Artemisia furcata*

321 *Artemisia tridentata*

322 *Aster campestris*

323 *Aster paucifloras*



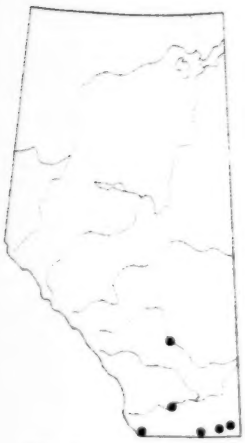
324 *Aster umbellatus*

325 *Bidens frondosa*

326 *Brickellia grandiflora*

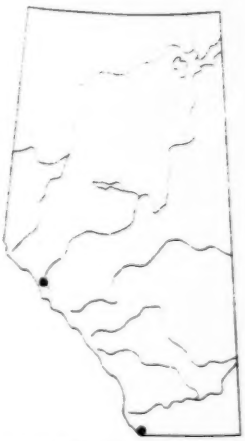
327 *Cirsium scariosum*

328 *Crepis atrabarba*

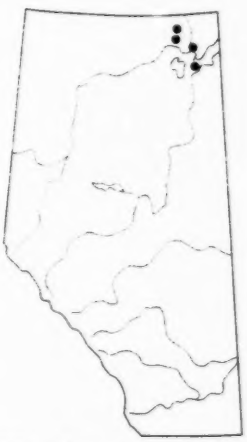


329 *Crepis occidentalis*

330 *Erigeron divergens*

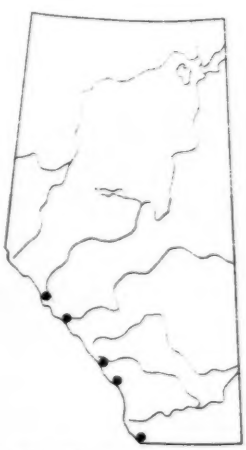


331 *Erigeron flagellaris*

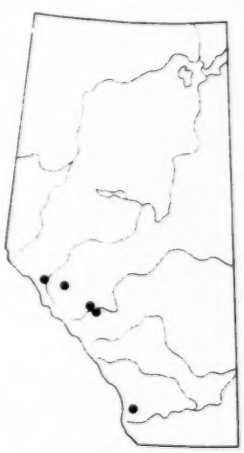


332 *Erigeron hyssopifolius*

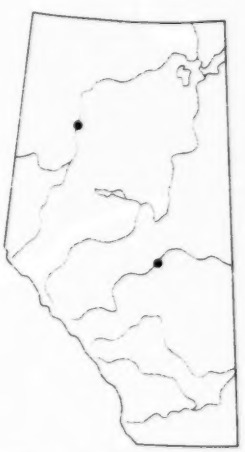
333 *Erigeron ochroleucus*



334 *Erigeron purpuratus*



335 *Erigeron radicatus*



336 *Eupatorium purpureum*

337 *Franseria acanthicarpa*

338 *Gnaphalium microcephalum*

339 *Gnaphalium viscosum*

340 *Haplopappus uniflorus*

341 *Hymenopappus filifolius*

342 *Lygodesmia rostrata*

343 *Machaeranthera tanacetifolia*

344 *Microseris nutans*

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351 *Senecio hydrophiloides*

352 *Senecio megacephalus*

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354 *Tanacetum huronense*

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